ATHABASCA UNIVERSITY

EXPLORING THE COMPLEXITY OF OPEN PEDAGOGY IN DIGITAL-DISTANCE UNDERGRADUATE NURSING EDUCATION

BY

KRISTIN PETROVIC

A DISSERTATION

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF EDUCATION

FACULTY OF HUMANITIES AND SOCIAL SCIENCES

ATHABASCA, ALBERTA

SEPTEMBER 27, 2023

Approval Page

Approval of Dissertation

The undersigned certify that they have read the dissertation entitled

EXPLORING THE COMPLEXITY OF OPEN PEDAGOGY IN DIGITAL-DISTANCE UNDERGRADUATE NURSING EDUCATION

Submitted by:

Kristin Petrovic

In partial fulfillment of the requirements for the degree of

Doctor of Education in Distance Education

The examination committee certifies that the dissertation
and the oral examination is approved

Co-Supervisors:
Dr. Pamela Walsh
Athabasca University

Dr. Beth Perry
Athabasca University

Committee Members:
Dr. Mohamed Ally
Athabasca University

Dr. Cindy Ives
Athabasca University

External Examiner:
Dr. Olive Yonge
University of Alberta

October 6, 2023

1 University Drive, Athabasca, AB, T9S 3A3 Canada
Toll-free (CAN/U.S.) 1.800.788.9041 (6821)
fgs@athabascau.ca | fgs.athabascau.ca | athabascau.ca

Dedication

I want to dedicate this dissertation to my dear friend, colleague, and mentor, Dr. Annette Lane. Annette, I have cherished our time together. I have learned so much from you and with you. I have been inspired by you during our walking meetings and come back to the office with clarity and motivation. You have been a constant presence in my personal and professional life. You have given unselfishly to help me on this journey. You are a true model of what I aspire to be as an academic, dedicated to furthering the scholarship of teaching and learning while pursuing research that is personally meaningful and useful to the academic world. And so, I dedicate this final step of my doctoral journey to you Annette.

Acknowledgements

I want to thank the following people who made this dissertation journey both possible and positive. My committee members, Drs. Cindy Ives and Mohamed Ally, whose insight and attention facilitated me in taking on a study that explored both nursing education and digital-distance education. Special thanks to my supervisors, Drs. Beth Perry and Pamela Walsh, who went above and beyond to support me throughout this experience. As supervisors, you encouraged me to lead my journey while providing strategic and sound guidance. I learned as much about my study topic as I did about myself as a researcher. A big thank you to my methodology advisor Dr. Alex Clark, and to my external examiners at the proposal and final examination phases Drs. Sharon Moore and Olive Yonge. Additionally, thank you to my copy editor Chris Fox.

Thank you to the nurse educators of Athabasca University for trusting me with your knowledge about educator practice. Finally, to my colleagues from the Faculty of Health Disciplines (there are too many names to mention) you have mentored and supported me from the time I thought about this journey through to completing it. I have never felt alone, and to you all, I am genuinely grateful.

I want to express gratitude to my family. Specifically, my parents Warren and Wendy, Patricia and Nestor, who helped with the kids, expressed interest in my study, and offered encouragement throughout the process. Thank you to my mother-in-law Dragica, who stepped in without question to help with the kids during an unexpected challenge. Thank you to my children Mirko and Tatjana, who offered unlimited hugs of support and moments of joy. You have been my inspiration always. Finally, to my husband Sasha, whose steady presence and support never wavered. Sasha, you never questioned the work this journey would take and always found ways to make my studies easier by taking the kids out swimming, bringing me coffee, or sharing a moment of humour. Thank you to every single person who has helped me through this journey! I am grateful to all of you.

Abstract

Open pedagogy, rooted in distance education, shows promise in increasing access to education through principles of relational practice, use of a critical lens, student-centred practices, valuing the scholarship of teaching and learning, and open knowledge practices. Characteristics of open pedagogy align well with nursing practice ethics. Open pedagogy has the potential to make nursing education more effective, meaningful, and socially just, particularly in the digital-distance environment. Nurse educators often lack exposure to the digital-distance realm and, like many teachers in the post secondary system, lack formal pedagogical education. Open pedagogy provides a promising avenue for digital-distance nurse educator development.

This dissertation reports on an exploratory qualitative study that focused on the complex nature of the links between open pedagogy, undergraduate nursing education, and digital-distance learning. I framed the study within a critical realist research paradigm. I explored how open pedagogy operates in digital-distance undergraduate nursing education and investigated what nurtures and challenges it.

I employed social complexity theory, as developed by Brian Castellani and Frederic Hafferty (2009), to conceptualize and design the research study. Using a two-phase, stepwise approach, I first explored institutional documents from Athabasca University, a Canadian open digital-distance institution that offers an undergraduate nursing education program. I analyzed documents for open pedagogical characteristics using an applied thematic analysis technique to gain a holistic sense of the system. In the second phase, I interviewed four digital-distance nurse educators from the institution using the same applied thematic analysis to develop a more detailed understanding of the complex social

system under study. Finally, I built a working model of how open pedagogy operationalizes, is nurtured, and is challenged within Athabasca University's open digital-distance undergraduate nursing education program. Findings from this research contribute to the fields of digital-distance nursing education, the scholarship of teaching and learning in higher education, and open pedagogy in digital-distance higher education.

Keywords: open pedagogy, nursing education, digital-distance education, social complexity theory, applied thematic analysis

Table of Contents

List of Tables

List of Figures and Illustrations

Definition of Terms

The following terms are defined to support clarity of terminology within my study. All terminology is grounded in the relevant literature.

Accessibility: Is characterized by increasing ease of ability to use, obtain, or participate in something by removing barriers (Government of Canada, 2022). In education, this means teaching and learning values, practices, and outcomes that increase or ease student participation through the removal of barriers.

Accountability: Is the values, practices, and outcomes that are ethical, transparent, and responsive to stakeholders and which build trust (Merriam-Webster, 2022a). Accountability in education is evidenced through ethical, transparent, and responsive teaching and learning values, practices, and outcomes.

Advocacy: "Involves engaging others, exercising your voice and mobilizing evidence to influence policy and practice" (Canadian Nurses Association, 2022, p. 1). Furthermore, advocacy can involve using influence through the political process specific to inequity and inequality (Canadian Nurses Association, 2022). Within education, advocacy can be demonstrated through teaching and learning values, practices, and outcomes that facilitate and increase equity and equality.

Adult Learning Principles: Teaching and learning values, practices, and outcomes that focus on principles of adult learning, specifically: (a) the need to know, (b) the learner's self-concept, (c) the role of the learner's experiences, (d) readiness to learn, and (e) orientation to learning (Knowles et al., 2005).

Affordability: Focuses on decreasing or managing costs. Within education this means teaching and learning values, practices, and outcomes that demonstrate cost awareness or reduction of costs primarily for students (Reynolds, 2021). Though not solely focused on students, it may also include cost reductions that benefit institutions and educators if increasing institutional affordability does not increase costs for students.

Applied Thematic Analysis: A data analysis strategy that supports exploratory research and provides a transparent stepwise approach to ensure rigour, thus reducing potential bias and building reflexive practice into the process (Guest et al., 2012; Mackieson et al., 2019).

Asynchronous Learning: Means students learn on their own schedule (Kraglund-Gauthier & Moseley, 2019; Ust, 2021) in courses set up to offer independent teaching and learning activities (Crosslin et al., 2020).

Blended Learning: A model of education that includes a mix of face-to-face and digital-distance programming (Porter et al., 2020).

Community of Inquiry Model: "The Community of Inquiry theoretical framework represents a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements—social, cognitive, and teaching presence" (Garrison, et al., n.d., p. 1).

Complexity Theory: "The study of complex and chaotic systems and how order, pattern, and structure can arise from them [. . . . and] the theory that processes have a large number of seemingly independent agents that can spontaneously order themselves into a coherent system" (Dictionary.com, 2022, para. 1 & 2).

Coupling: In social complexity theory, coupling is the term used to describe what happens when social practices come together (Castellani & Hafferty, 2009). For example, coupling can be used to describe what happens when nursing education includes open pedagogical practices.

Critically Framed Teaching and Learning: Teaching and learning values, practices, and outcomes that ask questions related to who benefits and who is disadvantaged, and that facilitate the removal of barriers to teaching, learning, and research while facilitating equity, diversity, and inclusion practices that increase accessibility and flexibility within education (Stommel & Burtris, 2019). Critical educational practices demonstrate accessibility, flexibility, accountability, advocacy, and affordability (at the system level that moves beyond the person), equity, diversity and inclusion, redistribution of power, and the removal of barriers (Bali et al., 2020).

Critical Realist Paradigm: Critical realism holds is based in realist ontology, founded on the belief that there is a real world independent of any specific construction, and a constructivist epistemology meaning that the real world is always understood from the perception and construction of a specific point of view (Maxwell, 2012). Furthermore, complex phenomena have many layers, relationships, and interacting elements, and therefore exploration is profoundly and contextually specific (Blackwood et al., 2010; Glouberman & Zimmerman, 2002). Finally, exploration of phenomena does not seek linear causation; instead, generative causation is sought (Clark, 2015; Pawson, 2002; Pawson et al., 2005).

Digital-distance Education: Includes two significant components, digital and distance. Digital-distance education is defined as: (a) some degree of transactional distance between students, the educator, and the content resulting from course structure (Garrison, 2000; Moore,

1989); and (b) computer and internet technology that facilitates the interaction with the content, the instructor, and among the students (Bates, 2016; Guri-Rosenblit & Gros, 2011).

Document Authenticity: Determines how genuine the document is and asks questions, such as whether it is a primary source document or has undergone any language translations (Dunne et al., 2016; Morgan, 2022).

Document Credibility: Determines how reliable the document is and the degree to which it is error-free (Dunne et al., 2016; Morgan, 2022).

Document Meaning: The degree to which the presentation of the content is clear and understandable (Dunne et al., 2016; Morgan, 2022).

Document Representativeness: The extent to which a document aligns with other sources in the same field of study and contains information central to the purpose of the document (Dunne et al., 2016; Morgan, 2022).

Effect Beyond Person to Community: Teaching and learning values, practices, and outcomes that move beyond the person (within the higher educational institution) to potentially impact communities. Person includes a multitude of stakeholders, such as learners, staff, researchers, and educators that are part of the education community (Athabasca University, (AU), 2019).

Environment: Within Castellani and Hafferty's (2009) social complexity theory framework, environment is labelled Folder 4 and describes the surroundings the system is part of. Environments can be larger or smaller than the social system. As well this folder explores the environmental forces that influence the social system.

Equity, Diversity, and Inclusion (EDI): Within the educational context, equity focuses on increasing access to opportunity for university members through recognising and addressing systemic barriers while integrating evidence-informed strategies to mitigate barriers (Universities Canada, 2017). Diversity focuses on the intentional recruitment and retention of people from various backgrounds who are traditionally minoritized by systems of power (Universities Canada). Inclusion focuses on intentionally including people that have previously been left out through values and practices that remove barriers while creating safe and welcoming spaces (Universities Canada).

Field of Relations: Within social complexity theory, this is labelled Folder 1, which describes the elements and relationships that exist in the social system under study along with the relationships amongst the elements in that social system (Castellani & Hafferty, 2009).

Flexible: Within the educational context, flexibility encompasses varied pathways for entering, navigating, and completing higher education (Yusof et al., 2022). Flexibility is choice and freedom in learning related to place, time, and type (Advance HE, 2019; AU, 2023a). Type includes choice in assignments (demonstration of learning) and choice in how learners meet learning outcomes (i.e., with which learning resources and learning activities they engage).

Generative Causation: Generative causation, an assumption taken from critical realism, seeks to understand how a phenomenon works, for whom it works, and when (under what conditions) it works (Pawson et al., 2005).

High Quality, Innovative, and Adaptative Education: Teaching and learning values, practices, and outcomes that achieve the goal of excellent and high-quality education. Teaching and learning values, practices, and outcomes that demonstrate innovation, adaptation, and a

growth mindset within the educational context. Examples include focusing on trying new things to improve education, responsiveness to feedback, including implementing changes as a result, and looking for ways to improve the educational experience.

Life-long Learning: Teaching and learning values, practices, and outcomes that broaden who the learner is to encompass students across the lifespan and from many settings and levels (Global Education Monitoring Report Team, 2006). Life-long also includes learning deemed relevant to the learner due to their personal circumstances and goals (i.e., learning moves away from a set period) (Global Education Monitoring Report Team).

Meaningful and Relevant Learning and Research: Teaching and learning values, practices, and outcomes that identify meaningful and relevant learning and research. Learning experiences and research that honour a learner's and researcher's need to know, intrinsic motivations, and which are relevant to their current circumstances as professionals and learners.

Network of Attracting Clusters: Within social complexity theory it is labelled as Folder 3, and it describes the ways in which the social practices described in the web merge to produce further social practices (also known as coupling) (Castellani & Hafferty, 2009). As this network of attracting clusters is described it becomes evident which practices are most prominent and how the practices sit in degree of relation to one another (Castellani & Hafferty).

Open Educational Resources (OER): "Teaching, learning or research materials in the public domain or released with intellectual property licenses that facilitate the free use, adaptation and distribution of resources" (Scientific and Cultural Organization, 2021, p. 1).

Open Pedagogy: Grounded in the OER movement, open pedagogy has shown effectiveness in increasing access to education in a variety of digital-distance higher education

fields (Baran & AlZoubi, 2020; Tietjen & Asino, 2021). I have defined it by five characteristics: it uses a critical lens, has relational and student-centred practice, harnesses open knowledge practices, and has a relationship to the scholarship of both teaching and learning (Bali et al., 2020; Cronin, 2017; Cronin & MacLaren, 2018; Koseoglu & Bozkurt, 2018; Werth & Williams, 2022).

Open University: Refers to higher educational institutions that promote policies and practices of openness through admission processes that do not limit seats and do not allow competitive practices to limit who accesses a seat (AU, 2023a). Open universities are usually digital-distance institutions that promote flexibility and accessibility by removing geographical barriers and allowing students to schedule their educational journeys around personal and professional commitments (AU, 2023a). Open universities typically also include the opportunity for students to choose to study full or part-time (AU, 2023a).

Open Knowledge Practices: Teaching and learning values, practices, and outcomes that identify OER acquisition, creation, and distribution as well as open spaces of knowledge, open data, and open scholarship (Open Knowledge, n.d.).

Paced Digital-distance Education: In paced courses, students take and complete a course on a fixed timeline following a schedule for learning activities and assignments (AU, 2021).

Reconciliation: Reconciliation (also known as Conciliation) focuses on settler and Indigenous relations, teaching and learning values, practices, and outcomes that recognize past and ongoing harm stemming from colonial practices and that promote forward movement toward

collaboratively established healing, respectful, and sustainable practices and actions with Indigenous peoples (Faculty of Health Disciplines, 2021).

Relational: Within the educational context, relational practices prioritize relationships within the context of the system. Relationships are considered integral to the learning process (Kalir, 2020) and include relationships among students, between educators and students, among educators across the institution, and among institutional members such as students, faculty, staff, researchers, and members of the community (Baran & AlZoubi, 2020; Paulin & Haythornthwaite, 2016).

Scholarship of Teaching and Learning (SoTL): SoTL aims to increase the value of effective and meaningful teaching and learning practices, particularly in academia where the pillar of discovery has historically been centred (Boyer, 1990). The three main objectives of the SoTL include: (1) improving teaching and learning, (2) do research directly examining teaching and learning practices, and (3) contributing to the field of research in teaching and learning (Institute for the Scholarship of Teaching and Learning, n.d.).

Self-paced Learning: Self-paced means students complete teaching and learning activities on their own schedule (AU, 2021).

Social Agency: Within social complexity theory, social agency describes human choices, interactions, and practices that are under the control of the individual and which provide dynamics to social practices (Castellani & Hafferty, 2009).

Social Complexity Theory: "Is an all-purpose scaffolding designed to help researchers (1) organize and arrange, (2) categorize and sort, (3) classify and label, and (4) manage and control their empirical inquiries into the structure and dynamics of various social systems"

(Castellani & Hafferty, 2009, p. 120). Social systems are groups of people within a system. Social complexity theory draws from the principles of critical realism and uses a conceptual framework that is described as a filing system of folders that involves a two-phase, stepwise method of studying social systems (Castellani & Hafferty, 2009).

Social Practices: Within social complexity theory, the building blocks of the system are called social practices, which are "any pattern of social organization that emerges out of, and allows for, the intersection of symbolic interaction and social agency" (Castellani & Hafferty, 2009, p. 120).

Student-centred: Practices that place the student at the centre of the learning experience, where the holistic persona of the student is fundamental to their learning, and learning is not just focused on the question of **what,** but also **how** and **why** (The Teaching Excellence in Adult Literacy (TEAL), 2010). Student-centred practices exude a noted shift from teacher-centric to student-centred pedagogy (Day & Beard, 2019; Zanchetta et al., 2017).

Symbolic Interaction: Within social complexity theory, symbolic interaction is the structure that influences social practices within the system under study (Castellani & Hafferty, 2009).

Synchronous Learning: Means courses are developed with teaching and learning activities that bring together students and educators in real time (Ust, 2021).

System Dynamics: Within social complexity theory, this is labelled Folder 5, and it describes how the elements interact and influence both themselves and others, the impact of the interactions on the social system, the evolution of the interactions, and the influence of the environment on the social system (Castellani & Hafferty, 2009).

Systems Theory: "Is a conceptual framework based on the principle that the component parts of a system can best be understood in the context of their relationships with each other and with other systems, rather than in isolation" (Wilkinson, 2011, p. 1).

Thematic Analysis: Thematic analysis facilitates the exploration of latent or implicit meaning (Morgan, 2022) and "illuminate(s) insights relevant to particular research problems, which align" with the researcher's posed question (Higgins & Goodall, 2021, p. 4).

Web of Social Practices: Within social complexity theory this is labelled as Folder 2 and describes "the set of practices that couple together to form a social system of study" (Castellani & Hafferty, 2009, p. 151). Social practices are further defined by their structure and agency.

Chapter 1. Introduction

Digital-distance education with an open pedagogical approach is a promising avenue toward increase access to nursing education. This research explores open pedagogy in digital-distance nursing education. I begin with a concise summary of the background of open pedagogy in digital-distance undergraduate nursing education and of my positionality as a researcher. I then provide an overview of social complexity theory as the overall research design and discuss the significance of the study of open pedagogy in digital-distance undergraduate nursing education. I follow this with a more detailed discussion of my critical realist research paradigm and social complexity theory methodology and method. Next, I discuss data gathering and analysis involving review of institutional documents and interviews with nurse educators. This is followed by a description of my research scope and limitations. Finally, I provide a summary of the chapters included in the dissertation.

Problem Background and Problem

Open pedagogy is viewed through a critical lens and defined by its relational, student-centred, open knowledge practices, and its relationship to the scholarship of teaching and learning (SoTL) (Bali et al., 2020; Cronin, 2017; Cronin & MacLaren, 2018; Koseoglu & Bozkurt, 2018; Werth & Williams, 2022). Closely tied to the open educational resource (OER) movement (Conole & Brown, 2018), open pedagogy has shown promising effectiveness in increasing access to education in a variety of digital-distance higher education fields (Baran & AlZoubi, 2020; Tietjen & Asino, 2021). The characteristics of open pedagogy are prominent across the undergraduate nursing education literature; however, there is very little research specifically naming open pedagogy as a pedagogical approach in nursing education (Petrovic et al., 2023). Digital-distance undergraduate nursing education has a small body of literature compared to literature focused on traditional face-to-face program modes. Aligning well with

nursing ethical principles of practice, open pedagogy has the potential to make nursing education more effective, meaningful, and socially just, particularly in the digital-distance environment (Petrovic et al., 2023).

Social complex systems are multifactorial, an important consideration for how open pedagogy is enacted in digital-distance undergraduate nursing education. These factors include the educator; their pedagogical education; the educational program's mission, vision, and values; the institutional culture; the degree of alignment or misalignment of program policies with open pedagogy; the influences of the regulatory and licensing bodies; and the health-care and societal contexts the nursing students are entering. The impacts of these various factors may be significant or small, and the effect may also change depending on time, place, and person. Therefore, it was paramount that I kept a systemic, contextual, and complex lens on the study of open pedagogy in digital-distance undergraduate nursing education. Within this approach, I considered the following question: Why does open pedagogy work for some people and contexts, and why does it not work for other people or in other contexts?

Positionality

As a researcher I acknowledge that who I am affects how I studied the system of open pedagogy in digital-distance undergraduate nurse education. As both a student and nurse educator in digital-distance education, I interacted within the system and with the population that I studied. I viewed my positionality from a spectrum of insider-outsider characteristics (Dwyer & Buckle, 2009; Merriam et al., 2001). As a researcher, I was aware that insider knowledge provided the advantage of knowledge from inside the system and increased acceptance by participants (Dwyer & Buckle, 2009). However, there are also the disadvantages of carrying any stigmas or perceptions of the phenomena from my experience (Dwyer & Buckel, 2009). I also

reflected on the critical lens that is applied to open pedagogy (Bali et al., 2020). I was aware that as a white, cisgender, able-bodied, digital-distance nurse educator, and doctoral student nurse education researcher, I held immense privilege within the constructs of a neoliberal colonial society (Acevedo et al., 2015).

Overview and Outline of the Study

I studied the social complex system of open pedagogy in digital-distance undergraduate nursing education at Athabasca University (AU), a Canadian open, digital-distance university. Within AU, the Faculty of Health Disciplines has an undergraduate nursing program offering education primarily through digital-distance delivery.

Within a critical-realist paradigm and social-complexity-theory methodology and method, I asked the following research question: How does the digital-distance undergraduate nursing education system in the Bachelor of Nursing (BN) program at AU, operationalize, nurture, and challenge open pedagogy? Specific to the social system of open, digital, and distance nursing education within the BN program at AU, I asked the following subquestions:

- What elements and relationships exist?
- What are the social practices?
- What are the attracting clusters (dominant ways)?
- What are the internal and external environmental systems and forces?
- What are the dynamics?

I developed the subquestions in alignment with my underlying research methodology. Answering these subquestions allowed me to explore the elements, relationships, and environments of the system under study.

Study Significance

There is a call for nursing education to engage in socially just, effective, and meaningful learning practices (Bonini & Matias, 2021; Valderama-Wallace & Apesoa-Varano, 2019). Digital-distance education has seen promise with using open pedagogy in facilitating meaningful and effective learning while promoting socially just practices (Baran & AlZoubi, 2020; Tietjen & Asino, 2021). This use of open pedagogy makes sense for nurse educators, in part because the characteristics of open pedagogy align with nursing ethical principles (Petrovic et al., 2023). Alignment of open pedagogy with nursing principles of ethics matters, because many nurse educators come to teaching with a strong nursing practice background, but little to no teaching experience or formal pedagogical education (Brown & Sorrell, 2017). Thus, when nurse educators can develop their educator practice with open pedagogy, they are scaffolding their learning onto a familiar framework of principles and integrating evidence-informed teaching and learning practices. Open pedagogical teaching and learning facilitates practices in the classroom that are critical, relational, student-centred, and that harness evidence from the SoTL that also facilitates open knowledge practices.

The findings from this study contribute to the understudied fields of digital-distance nursing education, open pedagogy, and the SoTL. There are very few studies about open pedagogy in digital-distance undergraduate nursing education as discussed in the extensive literature review in Chapter 2. However, the open pedagogy characteristic of using a critical lens and defining it by its relational, student-centred, and open knowledge practices, and its relationship to the SoTL are present in the nursing education literature. Additionally, the SoTL is an underdeveloped and undervalued field of research (Booth & Woollacott, 2017; Mathany et al., 2017) that with further development can contribute to systematic and methodologically sound

research into meaningful questions about the impact of these teaching and learning practices (Institute for the Scholarship of Teaching and Learning, n.d.). In sum, I make important contributions to these three fields. Firstly, I contribute to the field of digital-distance nursing education by exploring the system and how it interacts with open pedagogy. Secondly, I am contributing to the SoTL because this study explores research questions relative to nursing education and the impact of open pedagogical practices. Finally, the findings from this study furthers the study and development of t open pedagogy in higher education.

Theoretical and Conceptual Overview

This section provides a more detailed overview of the critical realist paradigm that underpinned my research approach. I follow with further elaboration of social complexity theory as a methodology and method as well as descriptions the data gathering and data analysis I used to carry out Phase 1 and 2 of the study.

Critical realist paradigm

A critical realist paradigm is a middle ground paradigm between positivism and social constructivism (Critical Realism Network, 2020). Within this paradigm, I acknowledge that a world exists independently of my mind, but accept that my perception of the world is mind-dependent (Clark, 2015; Clark et al., 2008).

The word *complexity* describes phenomena in the social world where many layers, relationships, and elements interact and therefore require a contextually situated, nonlinear, in-depth exploration (Blackwood et al., 2010; Glouberman & Zimmerman, 2002). Thus, a critical realist lens of complexity accounts for timing, context, and space. Therefore, in studying the complex phenomena of open pedagogy in nursing education at AU, I investigated the varied

levels, structures, and participants within the program and the institution while considering the context of external professional nursing regulation.

Within the critical realist paradigm, I did not look to prove that open pedagogy was the best intervention; instead, I asked how open pedagogy works, for whom it works, and when it works (Pawson, 2002). Furthermore, I focused on understanding the mechanisms underlying open pedagogy in digital-distance nursing education (Pawson et al., 2005). By looking at who open pedagogy works for, when it works, and why it works, I explored generative causation. For example, when open pedagogy facilitates the removal of a barrier for learners, my research sought to understand which mechanisms generated the successful application of open pedagogy (the phenomena) for the removal of student barriers (the outcome). Thus, I did not try to prove linear causation, but instead I explored the why, how, and for whom of generative causation (Pawson et al., 2005).

Social complexity theory

Social complexity theory draws from the principles of critical realism. As described by Castellani and Hafferty (2009), social complexity theory provides both a conceptual framework and a stepwise design with which to study complex social phenomena.

Methodology. Social complexity theory draws from complex system theory. *Complex systems* are agent-based, self-organized, dynamic, far from equilibrium, emergent, and evolving (Castellani & Hafferty, 2009). Complex systems also have rule-following agents and exist within a larger environment. The complex systems being studied here are social systems. *Social systems* are described as people and groups in relationships that constitute a whole (Castellani & Hafferty, 2009). People and groups participate in social practices, and social practices are considered the building blocks of the complex social system. *Social practices* are “any pattern of

social organization that emerges out of and allows for the intersection of symbolic interaction and social agency" (Castellani & Hafferty, 2009, p. 120). Castellani and Hafferty (2009) developed the conceptual framework that I used to frame my investigation of the social practices of the structure, dynamics, and working concepts of the complex social system in my research context. The conceptual framework uses a five-folder system as adapted from Castellani and Hafferty (2009) and illustrated in Figure 1.

Figure 1

Overview of the Five-Folder Filing System

1. Field of Relations	The elements and relationships that exist in the social system of study along with the relationships amongst the elements. Folders 2–4 sit as subfolders to the field of relations.
2. Web of Social Practices	Describes "the set of practices that couple together to form a social system of study" (p. 151).
3. Network of Attracting Clusters	The ways in which the web of social practices couple, and as the study moves along, become the most "dominant themes" (p.137).
4. Environment and Forces	The environment the system is part of, which can be larger or smaller than the social system under investigation. As well this folder explores the environmental forces which influence the social system.
5. System Dynamics	Describes how the elements interact and influence both themselves and others, the impact of the interactions on the social system, the evolution of the interactions, and the influence of the environment on the social system.

(Castellani & Hafferty, 2009)

Method. I used the five-folder system described in Figure 1 to operationalize the study through a six-step, two-phase approach. I then collected and analyzed data to create a visual model of the social complex system of open pedagogy in the BN program at AU (Castellani &

Hafferty, 2009). Castellani and Hafferty (2009) encourage the use of techniques and tools that meet the needs of the research, and these methods seemed best for the need of this research.

Within the first phase I followed six steps to create an initial model of the complex social system of open pedagogy in the BN program at AU (Castellani & Hafferty, 2009). I analyzed publicly available institutional documents from AU to establish a general sense of open pedagogy within the institution. I gathered documents from AU's website including institutional, faculty, and program documents that supported the major concepts of open pedagogy, digital-distance education, and nursing education. I then employed an applied thematic analysis technique (Guest et al., 2012), which is a stepwise, reflexive approach to thematic analysis using both inductive and deductive techniques.

This first phase can be compared to a pilot phase of a study where the initial model created from the findings established a general sense of the system. The validity check in Phase 1 assessed the fit between the research questions, methodology, and methods and provided me with an opportunity to revise the research design before moving to Phase 2. The most significant revision made here was changing my sampling strategy from convenience sampling to purposive sampling.

I then moved into Phase 2 and continued to use the six-steps. In Phase 2, I completed semistructured interviews of digital-distance nurse educators within the BN program at AU, who represented a diverse yet experienced sample. Again, I used applied thematic analysis (Guest et al., 2012). I then applied these findings to the initial model from Phase 1, which evolved to become the working model of open pedagogy in the nursing program (Castellani & Hafferty, 2009). I present the working systems model with visual depictions and thick narrative

descriptions, and I then answer the research question in Chapter 5 followed by a discussion of the findings in Chapter 6 of the dissertation.

I was drawn to the use of social complexity theory methodology, because it answered the research question and subquestions and provided a balance between seeing the bigger picture of the system while simultaneously exploring the details and depth of the interaction between system elements, relationships, and the environment. As well, as a novice researcher, I appreciated the stepwise approach that promoted reflexivity.

Scope

Scope refers to the depth and boundaries of the study (Last, 2019). This research was limited to one program within one higher education institution. The initial model data (Phase 1) used institutional documents to gain a holistic understanding of the system's expected practices, policies, aims, and mandates. The working model from Phase 2 used more in-depth data specific to the practice of open pedagogy from the nurse educators' perspectives and experiences. In relation to the sample for Phase 2, I employed purposive sampling to select participants who represented varied nursing specializations, teaching roles and years of experience, and who all demonstrated use of the principles of open pedagogy in their teaching. Purposive sampling was an important change to the research design, because I was then able to include a specifically diverse sample of experienced digital-distance nurse educators.

Limitations

Limitations describe factors outside the researcher's control, which may have influenced the study (discoverphds, 2020). One of the greatest limitations I experienced concerns noted gaps in the literature related to open pedagogy. I found there was, in fact, a complete lack of a foundational body of literature related to open pedagogy within nursing. Open pedagogy as a

field of study has shown promising growth; however, it needs to be more developed within digital-distance undergraduate nursing education. As well, my application of social complexity theory methodology was largely based on a theoretical understanding. I sought advice from a methodologist at several points during this study to ensure I was understanding and applying the methodology correctly. Finally, my novice research abilities limited the quality of the research process as I honed my skill set and techniques throughout the study.

Overview of Chapters

This dissertation consists of the following chapters.

- Chapter 1 introduces open pedagogy in digital-distance nursing education. I follow with an overview of the significance of the study. I provide a theoretical and conceptual summary of critical realism and social complexity theory. Finally, I complete the chapter with an overview of the scope and limitations of the study.
- Chapter 2 presents the literature review that guided my research study. The literature review aims to provide the reader with an overview of the following areas of scholarship: undergraduate nursing education, digital-distance education, the SoTL, digital-distance nursing education, and open pedagogy. The alignment of nursing practice ethics with open pedagogy is described.
- Chapter 3 extends the discussion of my positionality with reflection on insider-outsider characteristics. I provide an in-depth discussion and rationale for my choice of critical realism as my research paradigm.
- Chapter 4 follows with an in-depth discussion of the guiding methodology and methods of social complexity theory. The research design element of data gathering, specifically

documents as sources and semistructured interviews of nurse educators as data sources, is described. This is followed by a discussion of data analysis (using applied thematic analysis), ethical considerations, funding, and dissemination strategies.

- Chapter 5 presents my research findings. I share findings relative to each of the five folders of the social complexity theory framework, answering the research subquestions. Then I answer the overall research question in three parts, applying the findings, respectively, to how open pedagogy is (a) operationalized, (b) nurtured, and (c) challenged.

- Chapter 6 presents a discussion of the findings, followed by the implications I drew from the discussion. I also review the limitations of the findings, make future study recommendations, and finish with a concise overall summary of the study and its contributions.

Summary

In this chapter, I provided an overview of the background to the study of open pedagogy in digital-distance undergraduate nursing education; an initial statement regarding my positionality as a researcher; and an outline of the research design, research questions, and study significance. I offered a concise synopsis of the critical realist paradigm, social complexity theory methodology and method, the data gathering and analysis strategies, and the scope and limitations of the study. Finally, I finished with a discussion of the structure of the chapters in the dissertation.

Chapter 2. Literature Review

This chapter provides an overview of the literature related to the central concepts of my study. I start by exploring Canadian undergraduate nursing education. Next, I discuss a more general literature review related to digital-distance education followed by a focused discussion of the scholarship of teaching and learning (SoTL). Then I review digital-distance nursing education, using an international lens as the field is small. Next, I discuss open pedagogy focused primarily on Canadian and American literature. Finally, I provide a brief overview of the published literature review I coauthored to substantiate choosing open pedagogy as a promising strategy for digital-distance nursing education.

Undergraduate Nursing Education

Since 2003 Canadian registered nurses (RNs), apart from Quebec, have required the minimum of an undergraduate nursing degree (Carter, Beattie, et al., 2016; Carter, Hanna, et al., 2016). Before this, RNs could practice with either a three-year diploma or with a four-year baccalaureate degree (Petrovic et al., 2019). Requiring an undergraduate degree situates RNs as professionals requiring knowledge, skills, and attributes attained by completing a broad-based degree in nursing (Canadian Nursing Association (CNA), 2020). The four-year nursing degree, including theory, laboratory, and clinical practice, encompasses nursing studies, health sciences, social, and humanities studies (CNA, 2020).

Practice profession

Integrated throughout the undergraduate nursing curriculum are components that "provide practice learning experiences to develop safe, competent, compassionate, ethical, and culturally safe entry-level nurses" (Canadian Association of Schools of Nursing [CASN], 2015, p. 13). Professional practice courses take place in diverse settings with clients of all ages and varying levels of health and wellness. Canadian undergraduate nursing education programs

ensure students can develop the skills, knowledge, and attributes (termed *competencies*) within the nationally legislated scope of practice (College of Registered Nurses of Alberta (CRNA), 2019). Undergraduate-prepared nurses are expected to practice from a competency-based mindset that moves beyond psychomotor skill development, to comprehensive development of foundational knowledge and affective learning combined to demonstrate critical thinking and problem solving within their practice. Students must demonstrate specific competencies to pass their nursing program (CRNA, 2019). Graduates from a nursing undergraduate degree program are eligible to write the national RN licensing exam. Passing this exam is necessary to practice as RNs.

Licensing exam

The national licensing exam was changed recently from a Canadian exam to an American-owned, developed, and delivered exam (Petrovic et al., 2019). This exam is called the National Council Licensure Examination and is offered with computer adaptive testing to assess the candidate's ability to demonstrate a predetermined level of proficiency in nursing education (National Council of State Boards of Nursing [NCSBN], 2020). Initial pass rates across Canada were significantly lower upon implementation of the American exam in 2015, but have since increased (Petrovic et al., 2019). However, concerns remain regarding the use of an American exam for Canadian-educated nursing students practicing in the Canadian health care system (Petrovic et al., 2019).

Demand for education

Demand for education and educational preparation has changed and evolved in response to social needs. Demand for prelicensure and professional development in RN education in Canada is high (BeMo, 2023; CASN, 2021; CBC, 2021; see also Myrick & Pepin, 2023).

Demand is due to multiple factors, such as an aging population and health care professionals needing increased education to care for the complex health needs of the baby boom generation (Bonini & Matias, 2021; *The Daily*, 2019; World Health Organization, 2018). Another consequence of the baby boom generation is the aging out of a significant portion of the nursing workforce (Davidson et al., 2021). In Canada in 2016, one in five nurses was over 55 years of age compared to one in ten in 1996 (*The Daily*, 2019). Professional and regulatory nursing bodies have also mandated professional development education for the continued competency of RNs (Munich, 2014; Salyers et al., 2014).

While professional development education for nurses is now commonly offered via digital-distance education (Kosteniuk & Stewart, 2019), only 25.8% of entry-to-practice undergraduate programming offers some inclusion of distance education (CASN, 2021). Inclusion of the distance education modality could mean as little as one course in a program (CASN, 2021). Digital-distance nursing education is a viable strategy to increase access for more potential undergraduate nursing students (Carter, Hanna, et al., 2016; Munich, 2014; Salyers et al., 2014).

Digital-distance Higher Education

Distance education can be traced back to medieval times. Early didactic texts such as the bible, progressed in the 19th century to printed texts that included home study guides (Moore, 1989). Digital-distance education includes two significant components, *digital* and *distance*. Digital-distance education is defined in this study as including both some degree of transactional distance, as conceptualized by course structure and dialogue between students, the educator, and the content (Garrison, 2000; Moore, 1989); and computer and internet technology that facilitates the interaction with the content, the instructor, and between the students (Bates, 2016; Guri-

Rosenblit & Gros, 2011). Moore (2018) summarized transactional distance as the gap between the understanding of the learner and the instructor (or instructional team). He suggested that distance education is the "methodology of structuring courses and managing dialogue between teacher and learner using communications technology to 'bridge the gap'" (p. 34).

Technology is often the focus in discussion of distance education, largely because it is a necessity in facilitating the distance educational experience (Anderson & Dron, 2011). The pedagogy of digital-distance education was, and remains, significantly influenced by the technology available to teachers and students (Anderson & Dron, 2011). As technology has evolved, so has the means of distance-education facilitation incorporating successively radios, telephones, televisions, and internet technology (Moore, 1989). Most recently artificial intelligence (AI) technology has impacted higher education in significant ways that have caused educators across the world to pause to reconsider pedagogy and practice (Crawford et al., 2023; Thompson et al., 2021). AI has the potential to increase the quality of education (Otto et al., 2023) by using products, such as learning management systems that integrate adaptive and personalized resources and assessments (Hannan & Liu, 2023). AI has also itself become a driver of change (Otto et al., 2023); for example, educators now need to reconsider assessment strategies given the potential impact of ChatGPT (Benuyenah, 2023; Crawford et al., 2023).

Digital-distance education is grounded in adult-learning theory. The digital-distance education route is a responsive movement away from elitist practices within traditional face-to-face higher education (Bates, 2008; Davidson et al., 2021); thus, digital-distance education mitigates many student barriers. These include geographical divides and circumstantial barriers, such as personal and family commitments and employment obligations (Ahmad et al., 2018; Carter, Beattie, et al., 2016; Davidson et al., 2021).

Beyond geographical and circumstantial barriers, sociocultural barriers are also an issue for students in higher education. These sociocultural barriers include relational power dynamics, the silencing of diversity, and the use of inequitable practices (Bali et al., 2020). Students of diverse backgrounds disproportionately experience such barriers (Croft & Brown, 2020; Davis et al., 2018; Valderama-Wallace, 2017). To facilitate the removal of sociocultural barriers Stommel and Burtris (2019) recommended working first to reveal the structures and practices that disadvantage students, and then advocating for dismantling these structures and practices.

Most distance education in the developed world is digitally facilitated, but there are still examples in remote locations in Canada where there is no access to high-speed internet (*Mena Report*, 2021a, 2021b). Students without access to reliable and affordable internet services, such as those living in rural and remote communities, which are disproportionately also First Nations reserves do not have the same educational opportunities as others (Office of the Auditor General of Canada, 2023). For example, in exploring access to professional development and continuing education for nurses, Kosteniuk and Stewart (2019) noted that in rural and remote Canada, one in ten nurses did not have workplace access to high-speed internet, and 69% did not have access to web conferencing.

Digital-distance education at scale is considered to be a way to offer more students more learning opportunities (Smith et al., 2018; Tilak & Glassman, 2020). *At scale* means having a high student-to-educator ratio, which enables the offering of education to more students (Anderson & Dron, 2011; Smith et al., 2018). Education-at-scale also often uses technology as a cost-saving measure for higher education to “do more with less” but this leads to the question of what level of quality is being sacrificed to facilitate education for increased student numbers? Daniel et al. (2009) described this problem as the iron triangle in education of cost, access, and

quality; whereby, changing of one side of the triangle (such as increasing cost) has effects on the other sides (i.e., increases quality, but decreases access). For example, studies found that at-scale education, although it increased access to education for more learners, lowered the quality of the experience, because there were fewer supports for student due to decreased educator-to-student connections as well as lower technological support during the educational experience (Smith et al., 2018; Snow, 2016). As educators strive to increase access to education, the iron triangle continues to provide an important reminder of the need to assess the effects scaling education has on cost and quality of education (Daniel et al., 2009).

Asynchronous, synchronous, paced, self-paced

Digital-distance education can be asynchronous, synchronous, paced, or self-paced. Asynchronous learning means the student accessing educational experiences anytime (Kraglund-Gauthier & Moseley, 2019; Ust, 2021). Asynchronous learning is facilitated through courses designed to be completed by students independently (i.e., they include written study guides with learning activities and the opportunity to access prerecorded lectures, videos, and PowerPoints independently). Asynchronous also includes communication methods, such as email, course mail, and mail (Crosslin et al., 2020). A significant advantage of asynchronous learning is the flexibility to choose the timing of learning engagement so that students can participate when it best suits them (Kraglund-Gauthier & Moseley, 2019; Petrovic et al., 2020). Another benefit specific to asynchronous communication is that students and instructors have time to think and reflect before communicating in forum discussions or when providing feedback (Kraglund-Gauthier & Moseley, 2019; Petrovic et al., 2020; Porter et al., 2020). However, in asynchronous experiences some students struggle with the increased transactional distance between themselves and the content, their classmates, and the educator. Transactional distance can leave students

feeling isolated and struggling with content comprehension (Cleveland-Innes & Garrison, 2021; Ust, 2021).

Synchronous learning brings together students and educators in real time (Ust, 2021) via technologies, such as synchronous teleconferencing and videoconferencing (Crosslin et al., 2020). Advantages of synchronous learning are the real-time connections and the sense of community that encourage students to collaborate with other students and with the instructor in intersubjective meaning-making (Cleveland-Innes & Garrison, 2021; Kalir, 2020; Ust, 2021). However, some students can dominate in synchronous experiences; whereas, asynchronous experiences provide more equal opportunity for all voices to be heard (Petrovic et al., 2020). The technology used (e.g., teleconferencing and videoconferencing) can also be a barrier and frustration when students do not have adequate access, connectivity is poor, or the technology malfunctions (Blackmon, 2018; Kosteniuk & Stewart, 2019; Reyes & Segal, 2019).

Paced digital-distance education means that students take and complete a course on a fixed timeline following a schedule for learning activities and assignments (AU, 2021). The advantages of paced learning include working with other students and the educator on a schedule that supports students in developing time-management skills (Anderson et al., 2005). Paced learning also allows students to work in a more structured context, which decreases transactional distance. Student-to-student engagement can be harnessed so students can collaborate in intersubjective meaning-making while working through course content (Sormunen et al., 2020; Ust, 2021). Educators can develop learning activities that take advantage of learning content at the same pace, thus building from the knowledge of classmates and the educator (Cleveland-Innes & Garrison, 2021). However, students can find that a set schedule is incompatible with personal and professional commitments (Faize & Nawaz, 2020).

In contrast, a self-paced course in digital-distance education means students complete learning activities and assessments at their own pace often within a set contract such as six months (Digital Learning Institute, 2021). Self-paced learning offers students the flexibility to study while meeting personal and professional commitments (Solin, 2021; Sormunen et al., 2020). Educators can work in a less didactic role and facilitate students meeting their unique learning needs (Solin, 2021). All digital-distance education students need to develop strong internal regulation skills to manage their time, particularly in self-paced learning, due to increased student autonomy (Wang et al., 2021). The flexibility of self-scheduling (though appealing for some students) can feel like an additional burden when students have high personal and professional demands (Snow, 2016).

Digital-distance education and COVID-19 pandemic

The COVID-19 pandemic was an unexpected crisis that forced higher education institutions worldwide to move swiftly from face-to-face programming to a digital-distance modality (Dewart et al., 2020; Sessions et al., 2022; Ust, 2021). This move allowed students to keep studying while following public health guidelines set in place to manage infection control (Sessions et al., 2022; Ust, 2021). Postpandemic more Canadian higher education students study face-to-face than via digital-distance learning. It is still debatable whether or not the shift to digital-distance learning that occurred during the COVID-19 pandemic will ultimately increase this model of education or perhaps result in more blended learning models (i.e., various mixes of face-to-face and digital-distance programming) becoming more common (Porter et al., 2020).

Digital-distance education course design and pedagogy look different than face-to-face course design and pedagogy (Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020; Sessions et al., 2022). Shifting from face-to-face to digital-distance education means rethinking how to

share content, complete learning activities, and assess learning to ensure quality is maintained (Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020; Sessions et al., 2022). Educators in digital-distance education need to use contextualized and evidence-informed pedagogy in their virtual classrooms.

Scholarship of Teaching and Learning

Evidence-informed pedagogy is encompassed within the SoTL. The SoTL is applicable to all modes of higher education. Boyer (1990) recognized that meaningful and effective teaching and learning practices "means not only transmitting knowledge but transforming and extending it as well" (p. 24). In the late 20th century, he challenged academia to look beyond the pillar of discovery (basic research) to value the full role of academics including integration, application, and teaching; this established four distinct (yet overlapping) pillars of activity. Since then, the scholarship of teaching has been extended to include the term *learning*. The SoTL "is the amalgamation of pedagogic research, and understanding of education theory and literature, reflection on one's practice as a teacher in higher education, and a learning-centred conception of education" (Webb & Tierney, 2020, p. 614). The SoTL has three objectives:

1. To improve student learning by finding better, more engaging ways to teach.
2. To conduct scholarly examination of what takes place inside the classroom, asking questions and collecting evidence on the effectiveness of different methods of teaching.
3. To make the results of this analysis readily available to other scholars, inviting their comment and review, and contributing to knowledge on student learning.

(Institute for the Scholarship of Teaching and Learning, n.d., para.3)

Within digital-distance education, the community of inquiry (CoI) model was developed with a focused aim to further the SoTL in digital-distance education. When used as a pedagogy, the CoI model facilitates a quality digital-distance educational experience that is deep and meaningful (Garrison et al., 1999). Quality digital-distance learning experiences using the CoI model are achieved when "a group of individuals collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding" (Cleveland-Innes et al., 2019, p. 1). As previously discussed, transactional distance in the digital space can be a barrier for learners (Ust, 2021), and an important outcome of enacting learner presences in the CoI model is the development of a sense of community that can reduce transactional distance. The CoI model can also be used as a framework to assess quality learning experiences in digital-distance education (Eldredge, 2023).

The SoTL in higher education has slowly been gaining traction (Bailey et al., 2022; Mathany, 2017); however, work still needs to be done to raise the value of the SoTL to that of the traditional scholarship of discovery in higher education (Booth & Woollacott, 2017; Nevgi & Löfström, 2015; Tierney, 2020; Webb & Tierney, 2020). The conventional scholarship of research in higher education continues to hold more systemic power for career advancement, external funding, and overall institutional prestige (Mathany, 2017; Tiereney, 2020; Webb & Tierney, 2020).

Scholarship of teaching and learning in nursing education

Learning to become a nurse educator is not often a component of undergraduate programming, because most undergraduate nurse educator roles require graduate-level preparation (PhD preferred). Nevertheless, the graduate-level programming taken as the primary requirement for academic positions (where a portion of the role is teaching) focuses heavily on

nursing science and includes only some or no formal pedagogical education. In a review of the institutions in Alberta, Canada that offered nursing PhD programs, no courses specific to educator development were found (University of Alberta, 2020; Faculty of Nursing, 2020). The lack of formal pedagogical education is not specific to nursing and can be found across doctoral degree programs aimed at preparing individuals for academic roles in other disciplines (Bates, 2016; Webb & Tierney, 2020).

Undergraduate nurse educators are hired to teach nursing from the position of their being experts in nursing practice (Kraglund-Gauthier & Moseley, 2019). These nurse experts need to transition from their roles as practitioners to their new roles as educators (Bailey et al., 2022; Barnes & Veesart, 2019; Cangelosi et al., 2009; Kraglund-Gauthier & Moseley, 2019). This transition involves developing within the scope and role of an educator and includes differentiating how they interact with nursing students compared to how they interacted with patients (Barnes & Veesart, 2019; Kraglund-Gauthier & Moseley, 2019). They also need to develop a sense of who they are as an educator, while learning to organize and carry out formal teaching and learning experiences (Barnes & Veesart, 2019; Cangelosi et al., 2009). Novice educators develop their practice based on various sources such as intuition, experiential knowledge, self-study, as well as formal professional development (Mathany, 2017; Nevgi & Löfström, 2015). Novice educators may also enter into mentoring and modelling relationships with experienced educators (Kraglund-Gauthier & Moseley, 2019).

Scholarship of teaching and learning in digital-distance nursing education

Digital-distance undergraduate nursing education pedagogy remains a developing field of research compared to traditional face-to-face nursing education. However, with the COVID-19 pandemic forcing a number of face-to-face nursing schools to move online, some recent evidence

has been added specific to the emergency move to a digital-distance mode. These studies ranged from the COVID-19 pandemic program pivots (Sessions et al., 2022; Shindjabuluka et al., 2022) to programs that were delivered by digital-distance education for other reasons (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020). Literature describing programs utilizing digital-distance modes, irrespective of the COVID-19 pandemic, focused primarily on students who were building from existing health professional backgrounds and furthering their education (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020). Though the gathered evidence is not extensive, what has been gathered is important to understanding the supporting literature related to the SoTL as it informs digital-distance nursing education.

Benefits to offering nursing programming via digital-distance were similar to general digital-distance findings that have noted it decreases barriers, offers flexibility, and increases access to education (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020; Sessions et al., 2022). Flexibility is anticipated to be a recruitment and retention strategy for nursing students (Davidson et al., 2021); however, Sessions et al. (2022) cautioned the need to balance flexibility with the high expectations of nursing students. They noted that there was tension in the balance of facilitating flexibility in the learning, while ensuring students were demonstrating program outcomes that could be used to assess student preparedness for the professional nursing role. Similar to the general digital-distance literature findings, nursing educators in digital-distance education recognized the importance of adult learning theory by incorporating principles of choice, student-centred practices, and scaffolding from prior learning and experience (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019).

Researchers noted that novice educators come with content and practice knowledge (Kraglund-Gauthier & Moseley, 2019; Porter et al., 2020). However, regardless of the institution's emergency or chosen transition to online, there is a general sense of inadequate digital pedagogical knowledge among nurse educators and desire for sound pedagogy related to teaching in the digital space (Porter et al., 2020; Sessions et al., 2022; Shindjabuluka et al., 2022). Educators learning to teach in the digital-distance context discussed the importance of integrating pedagogically sound technology choices and the practical element of using technology (Kraglund-Gauthier & Moseley, 2019; Shindjabuluka et al., 2022).

Educators spoke to the nuances of the digital world, concluding that they could not replicate face-to-face practices in the digital-distance educational experience (Porter et al., 2020). Studies also explored teacher identity and how to define student engagement in digital-distance learning (Porter et al., 2020; Sessions et al., 2022). Strategies to gain digital pedagogical understanding included mentoring from experienced digital-distance educators, support from technology experts, and accessing formal courses and professional development (Kraglund-Gauthier & Moseley, 2019; Sessions et al., 2022; Shindjabuluka et al., 2022).

Digital-distance nurse educators discussed the impact of course design on student learning (Kraglund-Gauthier & Moseley, 2019; Shindjabuluka et al., 2022). Porter et al. (2020) found that digital-distance course design puts the onus back on the student to determine the depth of knowledge they need to meet the learning outcomes. Moreover, Porter et al. (2020) highlighted the need to structure the coursework and content around core and extension knowledge due to the diversity in student knowledge and experience. Studies concluded that course design experts should be accessed during digital-distance course development (Kraglund-Gauthier & Moseley, 2019; Shindjabuluka et al., 2022). Strategies to facilitate learning within a

community were discussed specific to the importance of scaffolding students' learning from various perspectives and building deeper understanding through intentional questions posed in asynchronous form discussions and during small group work (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019). Though not referenced as the CoI in the literature, digital-distance nursing education strategies align with the principles of the CoI, because the CoI model (like nursing strategies) aims to create mutual understanding in a community of learners through intentional critical thinking and facilitating deep, meaningful learning (Cleveland-Innes et al., 2019).

Challenges experienced in digital-distance nursing education focus on the loss of interpersonal connection as experienced in face-to-face education (Kraglund-Gauthier & Moseley, 2019; Sessions et al., 2022). In addition, specific nursing education concerns arose around facilitating educational experiences for psychomotor skills, interpersonal communication skills, and clinical judgement development (Sessions et al., 2022). Finally, in the digital-distance mode there is the added challenge of working from a preset course and curriculum that needs to be designed for varied learners and allow for responsiveness to a changing healthcare contexts (Kraglund-Gauthier & Moseley, 2019). These findings represent a small body of literature that shows promising, but slow, growth. My search yielded few results, and the studies located also discussed the limited research on digital-distance models of undergraduate nursing education (Porter et al., 2020; Sessions et al., 2022).

Open Pedagogy

Open pedagogy is a way of teaching and learning primarily related to digital-distance education, but the underlying philosophy and practices are also known to traditional face-to-face education (Dalsgaard & Thestrup, 2015). Open pedagogy sits within a broader spectrum of open

initiatives, such as open universities, open educational resources (OER), and how the internet has opened access to the global digital world (Conole & Brown, 2018). First, with the OER movement being one of the most recognizable efforts in democratizing education, there has been a significant body of literature dedicated to defining open pedagogy as resulting in educational outcomes that come with the explicit use of OER (Baran & AlZoubi, 2020; Croft & Brown, 2020; Wiley, 2014; Wiley & Hilton, 2018). However, using OER is the starting point for open pedagogical practices that are complex and involve principles that can be applied to diverse facets of the educational experience (Carey et al., 2015; Cooke & Bouché, 2017; Kalir, 2020). There has been a noted shift in thinking in the field of open pedagogy to focus more on the teaching and learning processes when moving from private to more open practices, processes, and spaces. Werth and Williams's (2022) definition highlights' the values underpinning open pedagogy:

> Although any value or philosophic grounding of a concept may be described using various terminology, the purpose of being open in educational endeavours from the literature could be reasonably distilled to the following six concepts: sharing, transparency, collaborative knowledge construction, deconstructing traditional power dynamics, personalized learning, and learner empowerment. (p. 9)

Open pedagogy is a term that continues to emerge in definition and understanding (Veletsianos, 2015). Inspired by my literature review, I define open pedagogy as increasing access to education through principles of critical, relational, student-centred, and open knowledge practices while valuing the SoTL (Bali et al., 2020; Cronin, 2017; Cronin & MacLaren, 2018; Koseoglu & Bozkurt, 2018; Werth & Williams, 2022). In this next section, I discuss how these principles are presented in the literature. I begin with the topic of removing

barriers in knowledge creation and distribution. I then move to the value of relational practice, leading to the importance of educator development, which is a major concept within the SoTL. I follow this with a discussion of centring the student in the learning experience. I finish this section with applying a critical lens to the power balance in relationships and summarize with a discussion of how critical practices facilitate increasing access to education.

Removing barriers in knowledge creation and distribution

Across the globe, OER represent a critical movement in democratization of education that took place at the beginning of the 21st century (Elliott & Fabbro, 2015; McGreal, 2017). The term *OER* was defined by United Nations Educational, Scientific and Cultural Organization (UNESCO) in the early 2000s (McGreal, 2017; Miller & Homol, 2016): OER "are teaching, learning or research materials in the public domain or released with intellectual property licenses that facilitate the free use, adaptation, and distribution of resources" (Scientific and Cultural Organization, 2021, p. 1). OER became a crucial global initiative in achieving the UNESCO Sustainable Development Goal 4: Quality Education, which was again reinforced in the UNESCO 2012 Paris OER Declaration (McGreal, 2017). In working with OER, users can apply the five "R's": retain, reuse, revise, remix, and redistribute (Chiorescu, 2017; Nipa & Kermanshachi, 2020; Veletsianos, 2015). The 5 R's of OER are defined in Table 1, which is directly adapted from Creative Commons (2022, p. 3).

Table 1

The 5 R's of OER

Term	**Definition**
Retain	Make, own, and control a copy of the resource
Reuse	Use your original, revised, or remixed copy of the resource publicly
Revise	Edit, adapt, and modify your copy of the resource
Remix	Combine your original or revised copy of the resource with other existing material to create something new
Redistribute	Share copies of your original, revised, or remixed copy of the resource with others

When institutions adopt OER, they can provide students with low-to-no-cost learning resources that facilitate cost savings for the student and the institution (Chiorescu, 2017; Ikahihifo et al., 2017; Nipa & Kermanshachi, 2020). The Hewlett Foundation (n.d.) states that OER "include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge" (as cited in Ikahihifo et al., 2017, p. 127). There were early concerns that OER would not be similar in quality to traditional textbooks; however, researchers have suggested that the quality is equivalent (Ikahihifo et al., 2017; Lawrence & Lester, 2018).

With the ability to revise and remix OER, educators are not tied to outdated information or inhibited from undertaking quality improvement in learning resources; thus, they can always use current, relevant, and quality content in their courses (McGreal, 2017; West, 2019). Educators can also tailor their content to create course-specific pathways and student-centred materials (Chiorescu, 2017; Huggins & Smith, 2015). Finally, OER creation can allow student partnerships with educators or other students as they assemble, revise, and remix OER (Verkuyl et al., 2018). OER sit within public domains, meaning that the barriers of cost and access to high-quality educational resources are removed (McGreal, 2017). The use of OER increases equitable access for the public and for developing nations globally (McGreal, 2017).

Despite the advantages of OER use, OER awareness, use, and development remains underwhelming across higher education (Marin et al., 2022). There is a need to improve OER availability in repositories and faculty professional development to support understanding copyright and licensing issues (Marin et al., 2022). Strategies to increase OER use could include providing monetary incentives for creation and dissemination of OER (Marin et al., 2022) as well as inclusion of recognition for OER development by faculty in academic tenure and promotion structures (Doyle et al., 2022).

Valuing relational practice

I started with the OER discussion because it is often the first association with open pedagogy. In thinking about OER development, maintenance, and distribution I reflect on how OER harnesses the power of the community of higher education to a collective effort to increase access to relevant high-quality educational resources. Coming together in community means being in relationship, and so I now focus on the theme of valuing relational practice. Open pedagogy values highly collaborative practices as processes of intersubjective meaning-making

(Kalir, 2020). Collaboration can happen student-to-student, between educator and students, and among educators, students, and the communities around them. Relational practices establish inclusive, equitable, and meaningful communication pathways and processes (Kalir, 2020). In open pedagogy, participatory processes bring together students, educators, and possibly public community members (Baran & AlZoubi, 2020; Paulin & Haythornthwaite, 2016). These parties then collaborate in learning experiences, and the process facilitates intersubjective meaning-making (Baran & AlZoubi, 2020; Kalir, 2020). Intersubjective meaning-making "inherently embraces the importance of interactions among individuals in the process of making meaning" (Harrison & Tronick, 2022, para.1).

The concept of intersubjective meaning-making was also acknowledged as crucial to the CoI model in distance education and brings forward two more important topics within the digital-distance education space: crowdsourcing and massive open online courses (MOOCs). *Crowdsourcing* is defined as "the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people and especially from the online community" (Merriam Webster, 2022b, p. 1). In the literature, crowdsourcing to create meaning and OER was discussed specific to more traditional closed classrooms (Brown, 2015; Paulin & Haythornthwaite, 2016).

MOOCs bring large groups of people together to collaborate and participate in intersubjective meaning-making (Paulin & Haythornthwaite, 2016). MOOCs are defined as "the creation of global learning communities that share ideas, resources, and best practices . . . [that work] as a tool for expanding access to education" (Bonk, Miyoung, Reynolds, et al., 2015, p. 268). MOOCs are underpinned by connectivist learning theory (Crosslin et al., 2020). Other examples of strategies within open pedagogy that lean heavily on the underpinnings of relational

practice for learning are participatory technologies, social networking activities, and peer-to-peer learning activities (Cronin, 2017).

Valuing educator development

Collaborative processes in open pedagogy increase time spent in relationships, which supports networking opportunities (MacDonald & Ahern, 2015). Networking is of great value to students as well as to educators. Novice educators can network with more seasoned and experienced faculty (Bonk, Miyoung, Xiaojing, et al., 2015; Carey et al., 2015; Veletsianos, 2015). Although Veletsianos discussed faculty practices of resource-sharing that included lesson plans, presentations, assessments, and activity guides, unless these resources are publicly available, they do not qualify as "open." However, the practice of sharing amongst faculty members aligns with all other elements of being open and holds immense value in mentoring and growing a strong SoTL culture within a faculty (Veletsianos, 2015). Networking educators can learn together and not in silos or in competition, which promotes successful practice and facilitates better student-learning experiences (Cronin & MacLaren, 2018; Kalir, 2018; Veletsianos, 2015). Carey and colleagues shared how a teaching exchange for promoting improved SoTL became a model for students in thinking about how they could learn in community (2015). They emphasized that the teaching exchange (aligning with open pedagogy principles) facilitates enacting principles that promote effective, meaningful, and socially just learning experiences.

Centring the student in the learning experience

Open pedagogy facilitates student-centred learning. Centring the student is achieved through various strategies such as facilitating student empowerment as well as intentional course design that promotes student choice in learning activities enabling students to lead and control

their learning (Baran & AlZoubi, 2020; Huggins & Smith, 2015; Visser & Flynn, 2018). Also highlighted in the literature was the personalization of the learning experience (Bonk, Miyoung, Xiaojing, et al., 2015; Huggins & Smith, 2015). Huggins and Smith (2015) discussed the value of offering prior learning assessment recognition (PLAR) for experiential learning that would count toward higher education credentialing. Just-in-time learning was also discussed as an approach to facilitate learning experiences that meet students where they are at and engages them when it is relevant to them (Bonk, Miyoung, Xiaojing, et al., 2015). In the literature that discussed cocreation type activities, the student was centred and was both the recipient and producer of knowledge resulting in the learning process holding as much value as the learning outcome (Baran & AlZoubi, 2020; Paulin & Haythornthwaite, 2016; Verkuyl et al., 2018). Student-centred practices challenge didactic teaching and learning theory promoting more active learning (Verkuyl et al., 2018).

Power balance in relationships

The teacher is de-centred when centring the student in the learning process (Crosslin et al., 2020). This shift to centring on students facilitates an increase in student agency during the learning experience (Baran & AlZoubi, 2020; Bonk, Miyoung, Xiaojing, et al., 2015). When the student is in greater control of their learning, the power balance shifts to flatten the power structure from the traditionally vertical hierarchical structure in instructivist approaches in which the educator holds most power (Bonk, Miyoung, Xiaojing, et al., 2015; Verkuyl et al., 2018). As learning experiences are designed to increase student agency, the curricular structure also needs to be reconsidered (Paulin & Haythornthwaite, 2016). Curriculum structuring needs to encompass a participatory process that promotes the students' dual roles of knowledge producers and recipients (Paulin & Haythornthwaite, 2016).

As students assume greater power in the education process, they can learn the important skill of self-advocacy (Verkuyl et al., 2018). In addition, renegotiating student and educator roles can increase feelings of reciprocity in relationships (Dalsgaard & Thestrup, 2015; Verkuyl et al., 2018). Power balancing is also a result of how technology has increased knowledge availability, so that educators do not need to hold the role of knowledge givers and instead can embrace the role of facilitating meaningful learning (Paulin & Haythornthwaite, 2016; Verkuyl et al., 2018).

Increasing access to education

Throughout the preceding discussions I have alluded to the characteristics of open pedagogy that underly socially just practices. Now, I focus more specifically on socially just practices themselves. As previously mentioned, the very premise of open pedagogy is to increase access to educational experiences by decreasing barriers. The intentional work of open pedagogical scholars has been to use a critical lens to further increase accessibility to education from the classroom to the system.

For example, power redistribution in the relationship between students and educators was explored in the above section, and in review, this is an important step in democratizing the educational experience for students, because the power shift increases student agency (Bonk, Miyoung, Reynolds, et al., 2015; Paulin & Haythornthwaite, 2016; Verkuyl et al., 2018). Also, the critical lens can be seen at a wider systems level, such as when assignments facilitate students really thinking about the communities they live in with a critical and objective lens (Becnel & Moeller, 2017). Open pedagogy takes the principle of equity and provides strategies to integrate equitable teaching and learning practices (Kalir, 2018). The OER movement was a direct example of this principle in action. With the continued rise in the cost of higher education,

advocacy for institutional use of OER became a strategy to directly mitigate the cost of education (Croft & Brown, 2020; Visser & Flynn, 2018).

As described throughout this discussion, open pedagogy strategies impact curricular and systemic practices, and in return, the systems and curricula interact with open pedagogy integration (Croft & Brown, 2020; Dalsgaard & Thestrup, 2015). When changemakers from within a system alter teaching and learning practices by using open pedagogy, these changes can challenge existing principles, and the practices can then begin to affect wider change at a systems level (Dalsgaard & Thestrup, 2015).

With the participatory lens, open pedagogy permits educators to challenge current practices by trying new practices and by accepting (and learning from) being wrong (Kalir, 2020). For example, in 2008, Canadian scholars tried the new approach of offering educational experiences at an enormous scale now known as MOOCS (Crosslin et al., 2020; Lee, 2018; Paulin & Haythornthwaite, 2016). MOOCS worked from a relatively new model of connectivist theory that challenged traditional views on instructivist approaches (Crosslin et al., 2020; Lee, 2018; Paulin & Haythornthwaite, 2016). MOOCS are an exciting example of an open pedagogy innovation that has had some incredible success, but also has had some challenges, such as high attrition rates, confusion with role delineation of instructors and students, and questions related to accreditation (Bonk, Miyoung, Reynolds, et al., 2015; Bonk, Miyoung, Xiaojing, et al., 2015).

Open pedagogy encourages educators to work continuously to create inclusive and equitable educational experiences both in the classroom and at the institutional level (Croft & Brown, 2020). Important to open pedagogy is always to use a critical lens to circle back continuously to the primary intention of open pedagogy (Bali et al., 2020; Croft & Brown, 2020;

Kalir, 2018). Researchers have also suggested the areas in open pedagogy that would benefit from increased research.

One such area that requires further understanding is how technology within digital educational experiences can act as an equalizer to decrease the digital divide (Croft & Brown, 2020). Moreover, continued research is needed regarding the possibility that technology can create new barriers (depending on how it is being used), although alternatively it can increase access to educational experiences for potential students (Croft & Brown, 2020; Kalir, 2018). A generative causation model could be used to study how new technologies may be both hindering and increasing access depending on who and where they are being used (Croft & Brown, 2020). Research is also needed to explore whether using open pedagogy with the intention of increasing socially just practices does actually increase equity, diversity, and inclusion in digital-distance higher education (Bali et al., 2020; Croft & Brown, 2020).

Connecting Nursing Ethics with Open Pedagogy

After initial explorations of open pedagogy, I coauthored a narrative, thematic synthesis literature review to establish the alignment of nursing ethical principles with both critical and open pedagogy. This manuscript is titled, *Aligning Nursing Ethics with Critical and Open Pedagogy in Nursing Education: A Literature Review*, and was published in *Nurse Educator* in 2023. This manuscript is presented in Appendix A. The literature review manuscript explored how the Canadian and US nursing ethical principles of dignity, patient autonomy, patient-centred approach, health promotion, accountability, competence, social justice, equity, and safety align with the characteristics of open pedagogy (Petrovic et al., 2023). Establishing alignment was important in supporting and working from the assumption that nurse educators' can scaffold from their nursing practice to open pedagogical methods.

This early doctoral investigation looked closely at both open pedagogy and critical pedagogy. There is a noteworthy overlap between these pedagogies, and therefore I could not conceptualize them separately. I also discovered during my literature searches that open pedagogy is relatively underexplored in nursing education; whereas, critical pedagogy has a slightly more substantive body of literature within this field. I found only two articles in the Canadian and American literature that named open pedagogy in undergraduate nursing education, but I noted that characteristics of open pedagogy, as described in the open pedagogy section above, featured prominently across the nursing education literature review. After completing the literature review shared in Appendix A, I chose to focus my research study specifically on open pedagogy. I made this choice after personal and professional reflection on my positionality, which I discuss in greater depth in Chapter 3. However, I here briefly address why critical pedagogy is discussed in the literature review article in Appendix A. Critical pedagogy is distinct from open pedagogy, but the lens of critical teaching and learning is a crucial characteristic of open pedagogy.

Summary

This literature review provided a broad description of the concepts and topics that underpin my study. In first laying the foundation of nursing education and digital-distance education, I explain how established practices and expectations in both fields come together to facilitate digital-distance nursing education. The next stage of the literature review focused on the SoTL and digital-distance nursing education and provided some promising findings about pedagogical strategies to facilitate collaborative, in-depth and high-quality learning experiences while highlighting opportunities for further development in this field of research. Finally, I reviewed open pedagogy in digital-distance education specific to key characteristics. Digital-

distance nursing education is a promising avenue for increasing access to nursing education, particularly when pedagogical choices such as open pedagogy are integrated to facilitate meaningful and socially just learning experiences. As such, my study intends to deepen understanding of how teaching and learning in digital-distance nursing education operates specific to open pedagogy while also exploring how it is challenged and nurtured. Outcomes from this study are intended to connect conceptual understanding of open pedagogy and digital-distance nursing education, which are distinct and separate fields of literature as shared in this literature review.

Chapter 3. Positionality and Paradigm

This chapter provides a detailed discussion of my role and positionality as the researcher for this study. I share this discussion as a means of making clear the lens that I bring to this study. I follow it with a discussion of the research paradigm of critical realism. I chose to ground this study in critical realism in acknowledgment of my belief that there is an objective reality but that searching for and understanding that reality always involves, and is affected by, a personal lens (Maxwell, 2012).

Background and Role of the Researcher

As a researcher, I brought assumptions and beliefs about the world to my work. Discussion of these is important in establishing the alignment of who I am with the philosophical assumptions of critical realism, social complexity theory methodology, and the methods employed in this study (Creswell & Poth, 2018).

Positionality

As the investigator, I reflected on how my position affected my choices, from the research questions that guided the design of the study to the relationship I held when working with key informants, to my interpretation of the findings. I understand that my lived experience shaped my interest in, and perception of, the questions I wanted to answer in my research. I thought about my positionality from the insider-outsider perspective relative to the system and to the study participants. Being an insider provided me with experiential understanding of the phenomena, so there was the advantage of having experiential insight, empathy, understanding, and an increased chance of acceptance by the study participants (Dwyer & Buckle, 2009). However, there was also a greater chance of biases and assumptions regarding the phenomena under study (Dwyer & Buckle, 2009). See the ethical considerations section for further discussion of mitigation strategies to consider when conducting insider research.

I saw the insider-outsider perspective as less of a binary choice and more as one where there were degrees of insider and outsider characteristics. I do not see myself as either an outsider or an insider; instead, I see myself on a spectrum (Dwyer & Buckle, 2009; Merriam et al., 2001). In the following discussion I reflect on how my characteristics compare to the general population of digital-distance undergraduate nurse educators, based on the literature described in Chapter 2.

Insider-outsider characteristics relative to my population. I am white, cisgender, and able-bodied. Unlike many in academia, I am a first-generation academic. I have spent much of my student life and educator career in online digital-distance education. I currently teach at AU as a digital-distance undergraduate nurse educator. I have 15 years of nursing experience and 11 years of nurse educator experience. I have a graduate degree in nursing focused on teaching, and I am completing a Doctor of Education in distance education. My graduate school pathway also differs significantly from the general population of nurse educators, who typically have substantial nursing education, but often minimal pedagogical education, because I have formal education at both the masters and doctoral level in digital-distance nursing pedagogy. I also work with the participants within the same institution. Being part of this population provided me with incredible insight into many nuances of the profession, but I am also fully aware that I cannot completely discard that lens from my discoveries.

Given my positionality, I chose to narrow my pedagogical inquiry from critical and open pedagogy to focus on open pedagogy. Open pedagogy has underlying values akin to social justice but does not focus solely on it. Given my privileged positionality, I determined that critical pedagogy was a space best taken up by those with authority from their lived experience.

With a study focused on open pedagogy, I did my best to uphold principles of social justice and impart them in the research while not holding space that is not mine to claim.

Open pedagogy focuses on principles in teaching and learning that have evolved from a critical lens (Bali et al., 2020). These principles support learning for all and are especially relevant to diverse students with a focus on increasing access and highlighting sociocultural barriers. As a participant in higher education, I attempt constantly to be striving to improve access through the removal of systems, structures, and processes that create sociocultural barriers. I seek allyship, but fully recognize that I hold immense privilege within a neoliberal, colonial society (Acevedo et al., 2015). *Axiology* is "the role of values in research" (Creswell & Poth, 2018, p. 20). My axiology underlies my research identity; moreover, it demonstrates how my values have thus far helped me make choices and continued to do so throughout the study and beyond. The ethical considerations section features further discussion of how I reflectively and reflexively consider my positionality concerning the study. In acknowledging the importance of my mind-dependent lens, I am keeping to the foundational assumptions of critical realism, whereby the mind-independent truth will only ever be known through a personal lens (Clark, 2015; Clark et al., 2008).

Research Paradigm-Critical Realism

In the early years of graduate studies, I felt very much caught between believing that there is a way to make sense of what is happening in the world and recognizing that how I see and think about an event can drastically differ from someone else's perception. Trying to sort out what truth looked like (because I really believe there is one), while inspecting the lens of those who experienced the event, truly fascinated me. In more academic terms, I want to be situated in

the divide between positivist and social constructivist assumptions, which is where I locate critical realism.

Critical realism suggests that there is an actual world, which aligns with positivism, but observations of the real world are a perception, which aligns with social constructivism (Clark, 2015; Maxwell, 2012). Another way to think about this is that the events themselves are mind-independent, but the perspective of the events is mind-dependent (Clark, 2015; Clark et al., 2008). Roy Bhaskar, Margaret Archer, and Andrew Sayer are scholars credited with developing the paradigm of critical realism and argue that critical realism holds the middle ground between positivism and social constructivism and attempts to take considerations from both (Critical Realism Network, 2020).

Six fundamental principles of critical realism

Critical realism operates from the six following fundamental principles:

1. existence of independent reality-fallibly known;
2. stratified emergent generative ontology;
3. explanatory focus;
4. recognition of agency and structure;
5. reality as a complex, open system; and
6. methodological eclecticism and post disciplinarity.

(Clark, 2015, 22:31).

Critical realism makes the ontology of the paradigm more explicit, and sometimes secondary to its epistemology. *Epistemology* is "what counts as knowledge and how knowledge claims are justified"; whereas, *ontology* is "beliefs about the nature of reality" (Creswell & Poth, 2018, p. 19). More specifically:

> Critical realism combines a realist ontology (the belief that there is a real world that exists independently of our beliefs and constructions) with a constructivist epistemology (the belief that our knowledge of this world is inevitably our own construction created from a specific vantage point) that posits there is no possibility of our achieving a purely objective account that is independent of all particular perspectives. (Maxwell, 2012, p. vii)

Critical realism and complex problems

The term *complex* is a key concept not to be confused with the common term, *complicated*, and clearly delineated from *simple* (Clark, 2013b). First, a simple problem or situation can be viewed as a basic recipe, in that if the directions are followed, there is a definitive outcome (Glouberman & Zimmerman, 2002). Complicated takes that recipe and adds several more detailed directions; often, complicated problems require formulas that can be used to adjust for various factors. A common example is sending a rocket to the moon (Glouberman & Zimmerman, 2002). The people involved in sending that rocket need to be experts in understanding the instructions, but if they can apply the formulas and execute the detailed instructions, the rocket successfully launches to the moon (Glouberman & Zimmerman, 2002).

Unlike complicated problems, complex problems cannot be solved with high levels of expertise, formulas, or detailed instructions; there is no formula to adjust to solve complex problems (Glouberman & Zimmerman, 2002). Instead, complex problems are explored to understand how the outcomes come to be, and for whom they work, when, and under what circumstances, because the researcher cannot solve for a definitive answer (Clark, 2013b).

As a researcher, I looked at a complex problem. I wanted to explain why certain events happened and to understand how different interactions caused different outcomes while

remaining cognizant of contextual interplay. I looked to understand the complexity of the phenomena. For example, in this research, the context of digital-distance nursing education was crucial to understanding how open pedagogy operates.

Mechanisms of agency and structure

Researchers embedded in critical realism focus on searching for plausible explanations to why events occur the way they do (Clark, 2015). As I explored open pedagogy, I wanted to understand what in open pedagogy was working, for whom open pedagogy was working, and in under what circumstances (Pawson, 2002). To distill this information, I focused on how open pedagogy operates, is nurtured, and is challenged. I was not researching to find a general law to apply as I would have in a positivist approach that could be used for simple and complicated problems; instead, I sought to understand the mechanisms surrounding why open pedagogy works or does not work, which was and remains a complex problem (Pawson et al., 2005). For this approach, I looked for such factors as the educator's motivation, their skill level, and their background in formal pedagogy which can be described as mechanisms (Pawson et al., 2005). These mechanisms are known as *agency* in critical realism, and it is important to note that agency differs from the general context.

However, the context still matters. When integrating pedagogy, educators are practicing within the context of a multilayered system. There are various influences that are both internal and external to the system (e.g., regulation, nursing education, licensing, higher education, and open education), all of which exist as an organization with specific practices that come from, and create, the environmental structure (Blackwood et al., 2010; Clark, 2015). Therefore, my research needed to recognize and account for how open pedagogy was both situated in, and influenced by, these environmental forces (Blackwood et al., 2010; Clark, 2015). Moreover, I

needed to bring together both context (e.g., regulatory, nursing education, licensing bodies) and agency (e.g., educator's motivation, skill set, and pedagogical practices) to gain an in-depth understanding of the mechanisms of how and why open pedagogy was, or was not, working (Blackwood et al., 2010).

Generative causation

Critical realists practice from a model of *generative causation* as described by Pawson et al. (2005):

> The generative model of causality (which underpins realist enquiry) holds that, to infer a causal outcome (O) between two events (X and Y), one needs to understand the underlying mechanism (M) that connects them and the context (C) in which the relationship occurs. (p. 21)

In critical realist research, researchers are encouraged to let the question lead the study, rather than simply using the method or preferred methods as per the researcher's discipline (such as nursing or education) (Clark, 2015). In this study, my goal was to conduct the research in a way that helped me communicate open pedagogy relative to digital-distance undergraduate nursing education within AU while also revealing the how's of the system and the system elements. In taking this approach, I looked at structure and agency within the system.

Summary

To complete this study, it was important for me to consider how my positionality influenced my approach to the research. These reflections facilitated further understanding of alignment of my ontology and epistemology with a critical realist approach. Critical realism principles underpin social complexity theory which became my overarching methodology as I discuss in Chapter 4 (Castellani & Hafferty, 2009; Clark, 2015).

Chapter 4. Research Questions, Methodology and Method

This chapter provides a detailed discussion of elements of the research where I explored how open pedagogy is operationalized, nurtured, and challenged in digital-distance undergraduate nursing education at Athabasca University (AU). First, I identify the research question and subquestions that guided my study. Next, I discuss the methodology and method I used, following that by describing the approaches I used for data collection and analysis. Finally, I discuss the ethics, research rigour, reliability, validity, and the scope and limitations of this research study.

Research Questions

In the context of this study, open pedagogy facilitates increased access to education through principles of critical, relational, student-centred, and open knowledge practices, while valuing the scholarship of teaching and learning (SoTL) (Bali et al., 2020; Cronin, 2017; Cronin & MacLaren, 2018; Koseoglu & Bozkurt, 2018; Werth & Williams, 2022). Nursing administrators and educators have acknowledged the need for teaching and learning that engages in critical practices to promote equitable, diverse, and inclusive spaces while providing education that is effective and meaningful (Bonini & Matias, 2021; Valderama-Wallace & Apesoa-Varano, 2019). With this definition in mind, I asked my overarching research question: How does the digital-distance undergraduate nursing education system in the Bachelor of Nursing (BN) program at AU, operationalize, nurture, and challenge open pedagogy? I asked the following subquestions to explore the social system:

- What elements and relationships exist?
- What are the social practices?
- What are the attracting clusters (dominant ways)?

- What are the internal and external environmental systems and forces?
- What are the dynamics?

Research Methodology and Method of Social Complexity Theory

In the following section I provide a brief overview of how systems and complexity theory inform social complexity theory. I then discuss social complexity theory as both methodology and method.

Systems theory

In the 1920s systems theory became popular as a way to study change at the systems level within the increasing complexity of western society (Castellani & Hafferty, 2009). Wilkinson (2011) defined *systems theory* as "a conceptual framework based on the principle that the component parts of a system can best be understood in the context of their relationships with each other and with other systems, rather than in isolation" (p. 1). Educational research applies systems methodology as a means of better understanding complex problems from a holistic perspective (Adams & Langford, 2021; Jones, 2014; Sibanda & Iwu, 2021). For example, Sibanda and Iwu applied systems theory to better understand high dropout rates in business education with a focus on factors applicable to student agency (e.g., motivation) while also exploring institutional processes that were representative of system structure. Complexity theory, which is discussed next, considers the multidimensional and layered systems in which many phenomena exist.

Complexity theory

Complexity theory emerged in educational research in the late 20th century and also became a guiding methodology in health care research (Clark, 2013a; Szekely & Mason, 2019). Trying to find a general definition of complexity theory was challenging, and as I reviewed the

literature, I found that other researchers also spoke to the lack of a common definition. I used the following definition elements to ground my approach.

Complexity theory is:

1. "The study of complex and chaotic systems and how order, pattern, and structure can arise from them."
2. "The theory that processes have a large number of seemingly independent agents that can spontaneously order themselves into a coherent system."

(Dictionary.com, 2022, p. 1).

Table 2 summarizes the characteristics of complex systems as studied by complexity theorists.

Table 2

Characteristics of Complex Systems

Characteristic	**Description of Characteristic**
Agent-Based	• Are built from the ground up. • Agents interact to form the system. • Are emergent phenomena. • The whole is greater than the sum of its parts. (Castellani & Hafferty, 2009)
Self-Organizing	• Agents from within the system organize without external guidance. (Cohen et al., 2018; Waldrop, 2020)
Rule-Following Agents	• Guidelines, rules, and system parameters determine how to communicate and interact. (Castellani & Hafferty, 2009)
Dynamic	• What happens depends on what time and in which space the interaction occurs. • The study of the system is based on a point in time.

	• Evolution and adaptation result from internal and external interactions. (Castellani & Hafferty, 2009)
Far from Equilibrium	• Systems are somewhat stable, but "operate in a position far from equilibrium". • Described as the point between "chaos and complete order". (Castellani & Hafferty, 2009, p. 320)
Larger Environment	• A system is situated within a greater context or web of systems. (Systems Innovation, 2019)
Emergent	• Systems cannot be reduced to their agents. • The whole is greater than sum of its parts. • Is viewed holistically. (Cohen et al., 2018; Gear et al., 2022; Walker, 2014)
Evolve	• Systems adapt and evolve to survive internal and external influences.

	(Cohen et al., 2018; Martin & Dismuke, 2018; Walker, 2014)

Complexity theorists use the term *tipping point* to describe a "relatively sudden social change strongly associated with the phenomena of emergence" (Castellani & Hafferty, 2009, p. 264). Over the last two decades, western society has become active in a global society resulting in cultural, environmental, and political shifts (Castellani & Hafferty, 2009). Such complex and multilevel influences are best viewed from a lens that is not linear, but instead accounts for the system's complexity. Social complexity theory, which I discuss next, builds on systems theory and complexity theory, bringing them together to create an effective approach to social system research.

Social complexity theory as a methodology and method

Social complexity theory as explained by Castellani and Hafferty (2009) is used to study and describe complexity within a social system. A *social system* is a sociological term used to define a network of relationships among individuals and groups that can be described as whole (Castellani & Hafferty, 2009). Throughout the rest of this chapter, my discussion draws heavily from Castellani and Hafferty's (2009) description of social complexity theory. Social complexity theory allows researchers to study quickly changing systems with a case-based approach, while accounting for the interrelated connections and interdependent nature of social systems.

There is debate about whether social complexity theory is a methodology or a method; however, arguments have substantiated it as both (Castellani & Hafferty, 2009). For the purposes of this dissertation, I describe social complexity theory as how my research was conceptualized (methodology) and operationalized (method). As a methodology, it lays out a conceptual

framework to organize and classify the structure and dynamics of systems along and provides set working concept terminology with which I can communicate about the system (Castellani & Hafferty, 2009). The working concept terminology is applied to describe and analyze the complex social system. As a method, Castellani and Hafferty (2009) provided a stepwise approach that included set procedures with which to operationalize the research study. The aim of research designed from a social complexity theory perspective is to assemble a working model (that includes defined boundaries) of the social system in question. The authors have also described key social complexity theory assumptions. First, "a social system is a type of social practice" that it is characterized by the complex system characteristics described in Table 2; the second assumption is that "social practices are the building blocks of a social system" (p. 119).

Social practice. Social practice and corresponding terms are elaborated on in this section. *Social practice* is "any pattern of social organization that emerges out of, and allows for, the intersection of symbolic interaction and social agency" (Castellani & Hafferty, 2009, p. 120). Social practices in a society can be micro or macro, can range from simple to complex, and can vary in reach or time. For example, social practices could range from waving hello to a colleague to a political movement for antiracism in nursing (Castellani & Hafferty, 2009); however, "*Symbolic interactionism* [italics added] addresses the manner in which society is created and maintained through face-to-face, repeated, and meaningful interactions among individuals" (Carter & Fuller, 2016, p. 1). *Social agency* is the expression of autonomy through thoughts and actions (Silver et al., 2021). As described by Castellani and Hafferty, "symbolic interaction provides social practice its structure, while social agency provides social practice its dynamics" (2009, p. 120).

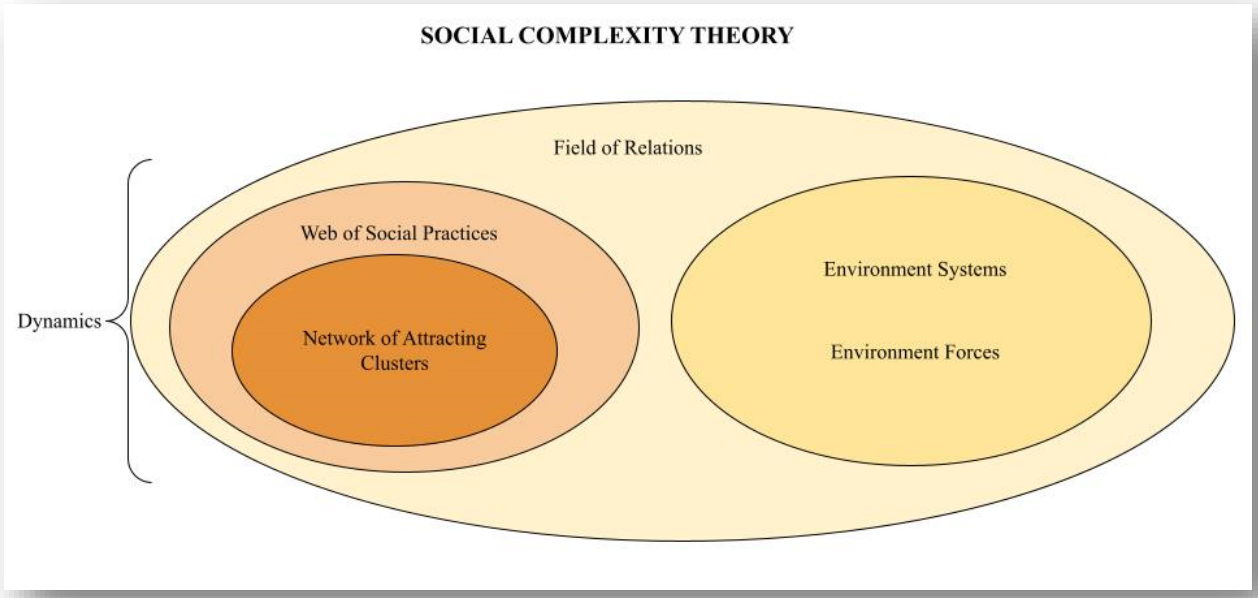
I was interested in investigating how the social practices of open pedagogy in digital-distance undergraduate education interact, how they differentiate, and how other social practices emerge. Through the investigation of social practices, I expected to be able to explore how open pedagogy is operationalized, nurtured, and challenged.

Conceptual framework

Social complexity theory uses a *conceptual framework* that is described as a five-folder system to organize and make sense of the different elements, relationships, and environments of the social system (Castellani & Hafferty, 2009). The five folders are: field of relations, web of social practices, network of attracting clusters, environment, and system dynamics (Castellani & Hafferty). Figure 2 is a direct adaptation from Castellani and Hafferty, and it provides a visual overview of the five folders used in my study. Dynamics, the fifth folder, is not visualized as a circle within the Venn diagram, because it describes what is happening throughout the other four folders. Following Figure 2, I provide a description of each folder.

Figure 2

Venn Diagram of Five-Folder Organizational Structure



(Castellani & Hafferty, 2009, p. 617)

Folder 1: Field of relations. The field of relations became a map of open pedagogy of digital-distance undergraduate nursing education in AU. In Folder 1 I included all the information needed to construct the social system, including all elements, relationships, and environments in the social system under study (Castellani & Hafferty, 2009). I visualized the field of relations as a realistic grid of the conceptual space in which elements, relationships, and environments exist. I then used this grid to anticipate how to build stronger relationships between

elements (Castellani & Hafferty). I provide the findings within this folder in Chapter 5. Folders 2–4 sit as subfolders in relation to the field of relations.

Folder 2: Web of social practices. The web of social practices described the social practices that make up open pedagogy within digital-distance undergraduate nursing education at AU. Folder 2 contains "the set of practices in society that couple together to form a social system of study" (Castellani & Hafferty, 2009, p. 151). This web reinforces the interdependent nature of social practices in social systems. Folder 2's purpose is to represent all elements (i.e., key social agents, interactions, communications, and social knowing) before exploring coupling (Castellani & Hafferty). Coupling is the bringing together of social practices through the structure of symbolic interaction and dynamic of social agency (Castellani & Hafferty). As described by these authors, elements of the web can be large or small, short or long in length of time, and they can sit as a system or subsystem within the social system of study. I provide the findings from this folder in Chapter 5.

Folder 3: The network of attracting clusters. As found in Chapter 5 the Folder 3 contains the findings from the network of attracting clusters. The network of attracting clusters, a subfolder of the web of social practices, describes how the social practices within the web coupled in a number of different ways (Castellani & Hafferty, 2009). As the research evolved, the goal was to distinguish the most prominent couplings to understand how a social system is practiced (Castellani & Hafferty, 2009). This folder shows the most prominent open pedagogy couplings within digital-distance undergraduate nursing education at AU. Prominent couplings are called attractor points and are often surrounded by smaller couplings to form hubs (Castellani & Hafferty, 2009). Boundaries were established here to determine which couplings are defined within the social system of study (Castellani & Hafferty, 2009). I determined system boundaries

using time and space, and which forces were considered external to the system as opposed to being internal forces (Castellani & Hafferty, 2009).

Folder 4: Environment. In this folder, I developed an understanding of the environment within which the social system functions (Castellani & Hafferty, 2009). The environment folder describes both the environment and environmental forces. Some environments were larger or smaller than the social system and some environments existed within the system while others were external to the system (Castellani & Hafferty, 2009). In summary, I used this folder to demonstrate how open pedagogy in digital-distance undergraduate nursing education within AU interacted with the environment and described environmental forces affecting the system at during the time of this study (Castellani & Hafferty, 2009). I provide the findings from this folder in Chapter 5.

Folder 5: System dynamics. Findings for folder 5 are found in Chapter 5. The final folder of system dynamics describes "the relationships, forces, and motions that characterize the 'play' in a social system" (Castellani & Hafferty, 2009, p. 177). Folder 5 contains data on how the attracting clusters come to be by demonstrating how the elements interact and influence both themselves and others, the impact of the interactions on the social system, the evolution of the interactions, and the influence of the environment on the social system (Castellani & Hafferty)

Operationalizing social complexity theory

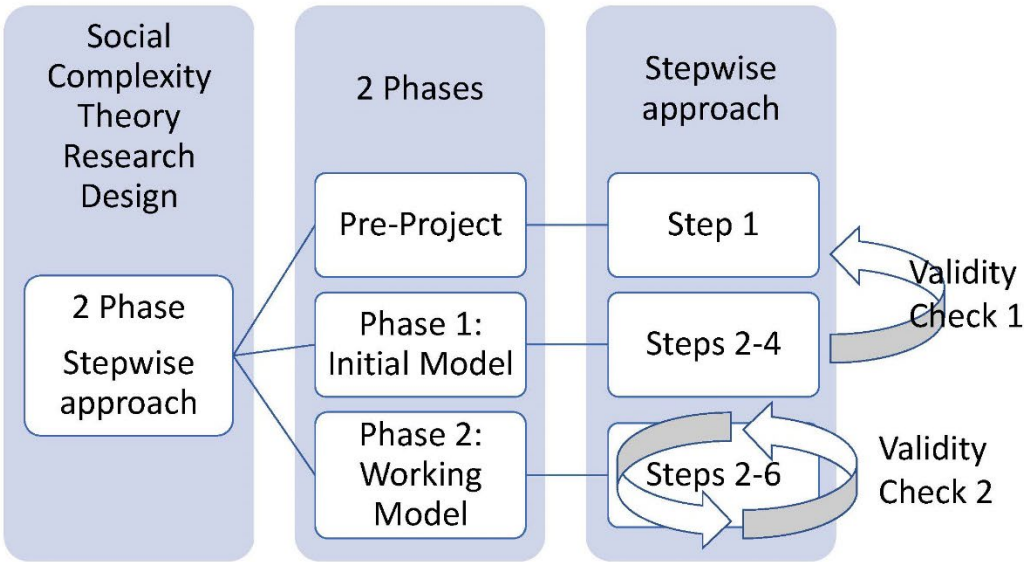
Throughout the operationalization of the study, including data collection and analysis, I documented the rationale for research decisions in my research journal. The research journal was a critical tool for documentation throughout the study. I also kept a reflexive journal separate from the research journal to document my reflections about the research experience. Both

journals are discussed in more detail in the Rigour, Reliability and Validity section of this chapter.

Social complexity theory was my methodology and the method that facilitated my approach to building the five folders. I used an active data management approach by developing and evolving the folders throughout the study (Castellani & Hafferty, 2009). The method of social complexity theory is to use two phases within a six-step design. Figure 3 provides a simplified overview of the two phases and six-step design.

Figure 3

Two Phase Stepwise Method of Social Complexity Theory



In social complexity theory, some steps are iterative while others are carried out simultaneously (Blackwood et al., 2010). I proceeded with the two-phase, six-step method of social complexity theory (the steps with an asterisk below are called core steps) as follows (Castellani & Hafferty, 2009, pp. 186-188):

1. Develop research questions.
2. Determine the field of relations and web of practices.*
3. Use the information from Step 2 to find the various couplings in the system.*
4. Determine the key couplings to create the network of attracting clusters.*
5. Determine the internal dynamics and the influence of the environment.
6. Finalize the working model, answer the research question, and consider using the model to develop new questions.

Step 1 consisted of research question development. Castellani and Hafferty (2009) described three types of research questions:

- Type 1 explores what can be learned about the social system through the development of a social complexity model.
- Type 2 compares social systems to understand their differences and similarities.
- Type 3 explores the social system to understand the structure, dynamics, emergence, self-organization, and evolution.

(pp. 199-201)

Researchers may choose to answer all three types of questions, to combine them, or to answer only one or two (Castellani & Hafferty, 2009). My research question and subquestions for the study fit the first and third types of these questions. My rationale for this was that my goal was to understand the particular social system of open pedagogy relative to digital-distance undergraduate nursing education in AU. In addition, I explored the system to understand its complex system characteristics better. Step 1 occurred prior to entering Phase 1.

Phase 1: The initial model. I entered Phase 1 after completing Step 1. Phase 1 involved one run through of Steps 2–4 using document analysis. The aim of Phase 1 was to establish an

initial model of the system to develop a holistic understanding of the system (Castellani & Hafferty, 2009). Phase 1 resembles the pilot phase of a more traditional qualitative research study. Phase 1 was set up to ensure all the research design elements worked and to allow for revision as needed. Phase 1 concluded with a validity check that is further described in the Ethics and Validity section of this chapter. The validity check allowed me to move forward confidently to Phase 2.

Phase 2: The working model. Phase 2 begins at Step 2. Steps 2–4 are the core steps of the method (Castellani & Hafferty, 2009). According to Castellani and Hafferty (2009), data collection can stop once the data added no longer produces new insights or changes to the model (a state also termed, *saturation*). I then moved to Step 5 where I explored the system's dynamics. This was followed by Step 6, wherein I finalized the working model and interpreted the findings using both narrative and visual presentations. My interpretation is presented in the Chapter 5, the findings chapter. The working model does not show every social practice coupling; instead, the working model is meant to provide a readable (not cluttered) visual of the system's structure and dynamics (Castellani & Hafferty, 2009).

Case-based research principles

My earlier discussion about social complexity theory describes using a case-based approach. As such, it is important that I demonstrate how my overall paradigm and research design align with case-based principles. Firstly, my research approach takes a holistic lens to understand real people and complex phenomena in alignment with case-based research (Cohen et al., 2018). Secondly, my underlying paradigm aligns with the case-based principle of multiple realities (Harland, 2014). Thirdly, I contextually situate my findings, which is a case-based research aim (Cohen et al., 2018, p. 376). Finally, the case takes centre stage (Woo, 2018), and

as the researcher, I use the tools and techniques that are needed to answer the research question (Clark, 2015).

Although my research paradigm and design align with case-based approaches, I do not specifically use a case study method. Within data collection and analysis in Phase 1, I treated the document analysis as one system defined by space and time boundaries, which aligns with defining a case in the case-based approach. In Phase 2, I interviewed key informants and collected and analyzed each interview individually as is done in case-based analysis, and then I analyzed interviews collectively, a process that is similar to cross-case analysis (Cohen et al., 2018; Creswell & Poth, 2018).

Phase 1 data collection

I first describe Phase 1 data collection and analysis and follow this with a discussion of the Phase 2 data collection and analysis procedures. In Phase 1 I collected data through document analysis wherein documents are defined as text recorded without the researcher's intervention (Bowen, 2009), and texts are positioned as informants (Higgins & Goodall, 2021). All texts were found on the public-facing website. I searched for documents specific to the university (AU), the faculty (FHD), and to the Bachelor of Nursing (BN) program. I chose institutional and program documents to explore their respective mission, vision, and values. I also included documents specific to the institutional and program strategic direction relative to teaching and learning. Finally, I chose BN course syllabi from the AU website that would demonstrate the implementation of the teaching and learning strategic plan. Due to the exploratory nature of Phase 1, I used theoretical sampling. *Theoretical sampling* allows for a recursive process whereby the researcher can collect data, begin analysis, and then add more data, if needed, during analysis (Morgan, 2022). At the point where new data revealed no

additional insights, I concluded the data collection process (Guest et al., 2012; Morgan, 2022). Document appraisal was undertaken prior to document analysis as a means of providing assurance that the sources demonstrated trustworthiness. I assessed the following four key elements of trustworthiness as identified by Dunne et al. (2016) and Morgan (2022):

- Authenticity is determined by how genuine the document is and asks questions such as, is this a primary source document or has it undergone any language translations?
- Credibility is determined by how reliable the document is and the degree to which it is error-free.
- Representativeness is the extent to which a document aligns with other sources in the same field of study and contains information central to the purpose of the document.
- Meaning is the degree to which the presentation of the content is clear and understandable.

I scored each of the four areas (authenticity, credibility, representativeness, and meaning) on a scale of 1–5 for a total possible score of 20. I scored nine documents full points, and the remaining three documents scored 19. The *Faculty Welcome Webpage* (2022) received a 4/5 in the representativeness section, because it lacked indication of how undergraduate programming meets open criteria. The two course syllabi received 4/5 in the credibility category, because of out-of-date foundational documents and for errors in the numbering of assignments. This document appraisal information is found in Table 3.

Table 3

Document Appraisal

Document Name	Authenticity (/5)	Credibility (/5)	Representa-tiveness (/5)	Meaning(/5)	Total Score (/20)
University Documents					
University Strategic Plan (2018)	5	5	5	5	20
University Learning Framework (2019)	5	5	5	5	20
Faculty Documents					
Faculty Welcome Webpage (2022)	5	5	4*	5	19
Faculty Mission and Vision (2019)	5	5	5	5	20
Message from the Faculty Dean (2021)	5	5	5	5	20
Faculty Strategic Plan (2019)	5	5	5	5	20
Bachelor of Nursing Documents					
Post LPN to BN Program Home Page (2022)	5	5	5	5	20
Post LPN to BN Learning Outcomes	5	5	5	5	20
Post RN to BN Home Page (2022)	5	5	5	5	20
Post RN to BN Learning Outcomes	5	5	5	5	20
BN NURS 3XX Syllabus [1]	5	4**	5	5	19
BN NURS 4XX Syllabus [1]	5	4***	5	5	19

Note: * Faculty overview strong; however, only graduate programs were highlighted in meeting open criteria.

**Out-of-date foundational documents noted.

***Errors in the numbering of assignments and out-of-date foundational documents.

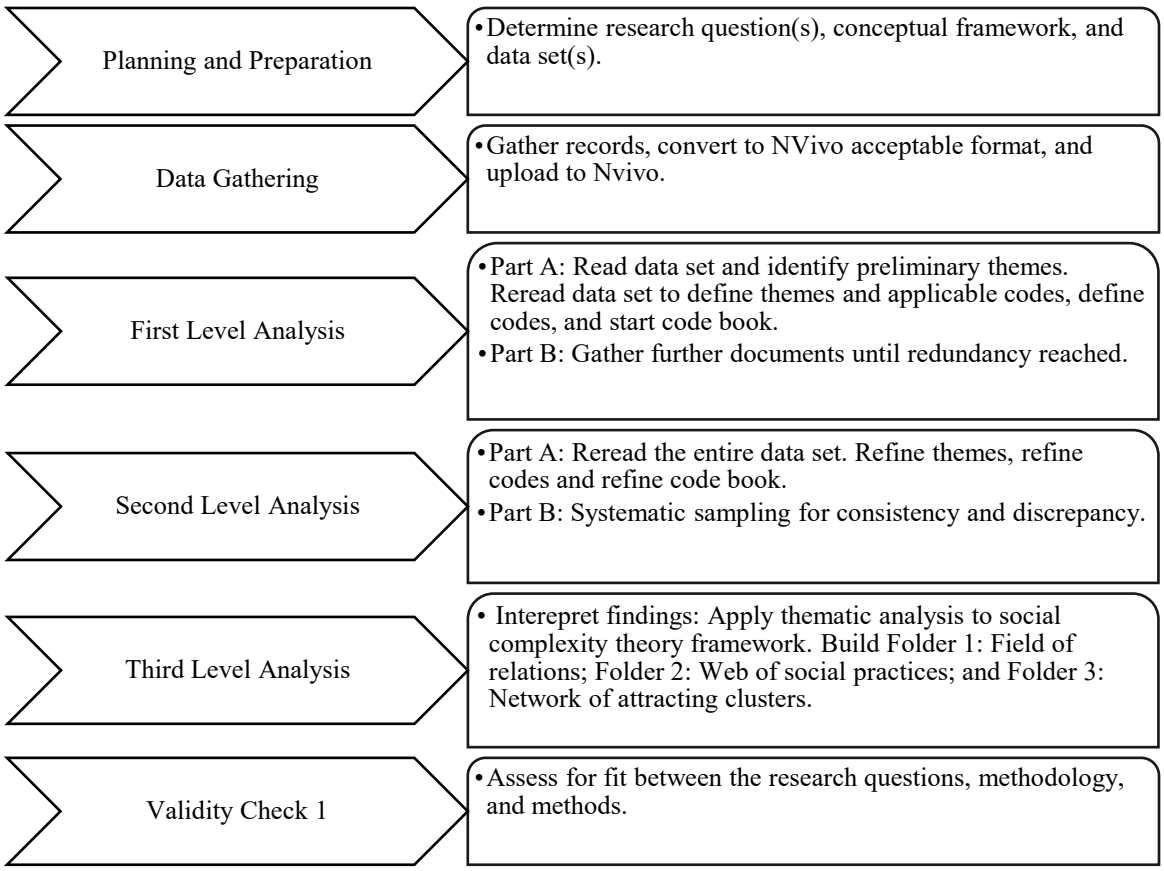
[1] Documents incorporated in the second round of document analysis in Level 1 analysis.

Phase 1 data analysis

When used as sources of information, documents are often explored through either content or thematic analysis (Mackieson et al., 2019). In the context of this research, I judged thematic analysis to be more appropriate than content analysis, because it facilitates the exploration of latent or implicit meaning (Morgan, 2022), and it "illuminate(s) insights relevant to particular research problems, which align" (Higgins & Goodall, 2021, p. 4) with the researcher's posed question. Therefore, I used the specific approach of applied thematic analysis. According to Mackieson et al. (2019), applied thematic analysis supports exploratory research and provides a transparent stepwise approach to ensure rigour, thus reducing potential bias and building reflexive practice into the process. Applied thematic analysis focuses on social researchers mapping and describing the qualitative evidence to facilitate organization and efficiency (Guest et al., 2012). The process of applied thematic analysis uses an iterative process where preliminary theme identification facilitates the finding of codes (Guest et al.). Furthermore, discovery of the codes further facilitates development and refinement of the themes (Guest et al.). Themes are defined as "units of meaning that are observed (noticed) in the data by a reader of the text" (Guest et al., p. 49). Coding is defined as qualitative analysis that links specific components of a theme to segments of data and is situated "in the realm of evidence rather than ideas" (Guest et al., p. 76). Guest et al. then recommends applying the evidence to the intended conceptual framework. Figure 4 provides my adaptation of of Guest et al.'s applied thematic analysis technique to Phase 1 of the study.

Figure 4

Phase 1 Applied Thematic Analysis Approach



First level of analysis. I gathered all documents and converted them to NVivo (Version 12.3) format for first level analysis. The first level of analysis consisted of two parts that are presented below as Parts A and B.

Part A. After loading to NVivo, I read the data set to identify preliminary themes (Guest et al., 2012). *Preliminary* themes were structural themes that are "imposed by the research question and design"; whereas *emerging* themes are those "observed or discussed in the context of the imposed research design" (Guest et al., 2012, p. 50). Preliminary themes centred around

the research question concept of open pedagogy using the defining characteristics of increasing access to education through demonstrating the principles of critical, relational, student-centred, and open knowledge practices, while valuing the scholarship of teaching and learning (SoTL). These characteristics were organized into an outline that was used to start the line-by-line document coding. During coding, segmentation of text was achieved by me determining a beginning and end point for each segment, which preserved context when I lifted it from the original document (Guest et al., 2012).

I used the hierarchical levels of nodes and relationship features in NVivo to thematically map the themes, codes, and subcodes as well as to locate emerging themes and codes. Emerging themes were those that I noted in context that supported my research question and subquestions. Examples of emerging themes included innovative technology use, reconciliation, and principles or adult teaching and learning. Throughout the coding process the preliminary theme outline from Part A evolved into the codebook. After reviewing the complete data set, I again reviewed the NVivo thematic map, clarifying and refining the codebooks' themes, codes, code definitions, coding instructions, and coding text examples.

Part B. The codebook was then reviewed and approved by my cosupervisors. First level analysis required gathering documents until redundancy was reached (Guest et al., 2012). University and faculty level themes were developing and well supported with codes; however, there were limited themes emerging that demonstrated the practice of open pedagogy in the BN program. For this reason, I added BN program documents, specifically, two BN syllabi. The BN syllabi coded were from courses that had undergone recent revision, and so emulated the current program teaching and learning strategic framework. These syllabi are noted in Table 3 with superscript numerals. I then again reviewed and refined the codebook.

Second level of analysis. Second level analysis is also a two-part process as described below. Applied thematic analysis can be done with one coder (Guest et al., 2012). One-coder analysis was used for Phase 1, because the document analysis reflected explicit concept development. As well, Phase 1 of social complexity theory can be compared to the pilot phase of a study, and it is meant to give the researcher a holistic view of the system and support the researcher in determining whether the methodology and methods make sense as planned (Castellani & Hafferty, 2009). I worked through Phase 1 knowing that I could use Phase 2 findings to develop a much more in-depth understanding of the complex system under study.

Part A. The first part of the second level analysis involved working within a new NVivo project with uncoded files. I then redid the coding analysis using the finalized codebook from the first level of analysis. My thematic interpretation at this stage focused on finalizing themes for Phase 1. Using the NVivo thematic mapping of nodes and relationships, I looked for patterns, causality, and relationships (Guest et al., 2012). Next, I reviewed the themes, codes, and subcodes before I refined and clarified the codebook. The finalized codebook from Phase 1 is given as Appendix B.

Part B. Next, I completed the second part of my Level 2 analysis, which was the systematic sampling of text within the project files before cross-comparing the complete document coding from Part A to develop the sample coding. I completed sample coding within a new NVivo project with uncoded files. The cross-comparison was used to highlight discrepancies. During my cross-comparison, I kept track of how many systematically sampled codes matched the original coding precisely and how many did not match exactly. The cross-comparison match was at 85% with a 15% discrepancy. Upon review of the 15% discrepancy,

the individual discrepancies were noted to be mostly codes that had been missed, and not codes that did not match. These missed codes had typically resulted from codes being similar codes, but housed under different themes, which indicated that the codes were not so much "missed," but rather misfiled in a different location in the codebook. As a result, I chose to collapse similar themes and codes to eliminate this issue. A second reviewer could have been brought in, if I had had a less successful cross-comparison or a higher percentage of codes that did not match. However, a second reviewer was unnecessary as the discrepancies found were easily explained and corrected.

Third level analysis. The third level of analysis consisted of applying the themes to the social complexity theory framework. According to Castellani and Hafferty (2009), phase 1 application to the framework consists of building the initial model of the system. My initial model of the system focused on building Folder 1: Field of relations; Folder 2: Web of social practices; and Folder 3: Network of attracting clusters. The building of these folders included two components: the visual diagram and a narrative description.

I referred back to the applied thematic analysis techniques outlined by Guest et al. (2012) to apply the themes to build the model, taking the following steps:

1. I reviewed the objectives of the analysis, the critical realist paradigm, and the social complexity theory lens to remind myself of the purpose of the study. This included reorientating myself to consider the system, elements, relationships, social practices, couplings, attracting clusters, and boundaries of the system.

2. Next, I reviewed the thematic analysis with a focused social complexity theory lens, applying my terminology to interpreting the thematic analysis. This stage involved a lot of reading, sketching, mapping, and thinking about the system.
3. After getting a good overall holistic sense of the system, I looked for patterns, causality, and relationships to create my initial model. I built the initial model by printing out a hard copy of the themes and codes and cutting them all out. I then visually arranged and rearranged them to make sense of the themes within the social complexity theory framework. I attempted to start with the first folder, the field of relations; however, the field of relations is a culmination of the web of social practices, the network of attracting clusters and the environment. Therefore, I started again with Folder 2: Web of social practices.

Initial model, Folder 2: Web of social practices. On a large poster board, I grouped and arranged the themes and subthemes to demonstrate the web of social practices, using yarn to illustrate relationships (Maguire & Delahunt, 2017). Themes and codes that were applied to create the web of social practices were then reviewed to ensure fit (Maguire & Delahunt, 2017). Several iterations were created using a white board and markers to sketch the web of social practices that I had interpreted from the themes and subthemes of the thematic analysis. I then built Folder 3: The network of attracting clusters.

Initial model, Folder 3: Network of attracting clusters. The network of attracting clusters was created by working with the original thematic analysis and the web of social practices folder. I worked with a white board and markers to sketch the network of attracting clusters. Several iterations of the network of attracting clusters were undertaken with a constant

reorientation to understanding what I was looking for, which was primarily prominent couplings of social practices. As the themes and subthemes were applied to create the network of attracting clusters, I then reviewed them for fit (Maguire & Delahunt, 2017). *Fit* meant ensuring the evidence from the thematic analysis aligned with the applied social complexity theory terminology. I then used both Folders 2 and 3 to develop Folder 1: Field of relations.

Initial model, Folder 1: Field of relations. The field of relations not only encompasses the web of social practices and the network of attracting clusters, but also includes the environment folder. The initial model is not required to have the environment folder, which included both the environment systems and forces, developed, but there needed to be a sense that it could be developed when moving to Phase 2 (Castellani & Hafferty, 2009). I had preliminary evidence of the environmental systems and environmental forces, and therefore I included these when building the field of relations for Phase 1. This initial model is described in Chapter 5.

Validity Check 1. Next, I moved to the Phase 1 validity check, where I first checked for fit between the model and research questions. Fit was assessed using a set of research methodology and method questions to ensure appropriate methodology application, and then reviewed to ensure the model was not being forced (Castellani & Hafferty, 2009). See the rigour and validity section below. Once the validity of the initial model was assessed, revisions were made, and I then moved to Phase 2.

Phase 2 data collection

In Phase 2, the initial model from Phase 1 was used as a foundational model to build onto, and as new data were collected the model evolved to become the final model of the system

(Castellani & Hafferty, 2009). The initial model had Folders 1–3 developed but in need of further refinement; whereas; Folders 4–5 had not yet been developed.

Data collection in this phase consisted of interviewing key informants. Key informants were nurse educators employed at AU, and who had experience in digital-distance nursing education across the BN program curriculum. Digital-distance experience was considered present if educators had taught at least three digital-distance courses within the BN program. Key informants also demonstrated varied clinical experiences. Demographics were generalized to protect the anonymity of the participants.

Interviewing key informants. I used semistructured qualitative interviews to gather detailed and in-depth qualitative information (Creswell & Poth, 2018), wherein "interviews enabled participants—interviewers and interviewees—to discuss their interpretations of the world in which they live, and to express how they regard situations from their own points of view" (Cohen et al., 2018, p. 506). The semistructured interview format supported the aims of experiential qualitative data collection. The semistructured format balanced structure with the ability to question deeper understanding, which is essential when working with complex phenomena (Cohen et al., 2018). As Cohen et al. noted: "In semistructured interviews, the topics and questions are given, but the questions are open-ended in the wording and sequence may be tailored to each interviewee, and the response is given with prompts and probes" (p. 511), thus deepening researcher understanding.

An interview guide was developed after completing Phase 1 of the research study to explore the overarching research question and subquestions. Guide development occurred at this stage to allow me to use the findings from Phase 1 to inform the questions I would ask in Phase 2. The operation of open pedagogy was well developed, and I had a good foundation of what

nurtured open pedagogy specific to institutional aims and policies, but I had found minimal evidence on actual practices. Challenges to open pedagogy were also underdeveloped. Questions in the interview guide were developed to further explore practices that nurtured open pedagogy, and how practices aligned (or not) to institutional programs, aims, and policies. Finally, questions and prompts to questions were developed to specifically glean information regarding the challenges to and of open pedagogy.

The interview guide, which included descriptions of key terms, was piloted with a known digital-distance educator within the sample population to see if it yielded data needed to answer the research questions. The pilot participant and I debriefed regarding the interview guide, interview process, and my role and skill as a data collector postinterview. Based on the debriefing feedback and self-reflections, I made the following changes:

1. I added prompts to encourage comparison of personal educator practice with institutional and program expectations.
2. I defined major terminology prior to each question. Piloting the interview guide supported me as the pilot responder provided constructive feedback that I could reflect on, and then discuss with my supervisors to facilitate reflexive changes.

The finalized interview guide is given as Appendix C.

Due to COVID-19 pandemic restrictions I used virtual interviews. Virtual interviews were completed through Microsoft TEAMS using audio recording and auto transcription. The virtual model ensured physical safety, an essential element during the pandemic (Faize & Nawaz, 2020). Virtual interviews also decreased travel time and cost for both interviewer and participants and offered the advantage that anyone could participate regardless of physical

location, which increased accessibility (Sah et al., 2020). For example, the participants were located across two provinces and three different cities. Virtual interviews also offered the ease of connecting from the comfort of our homes.

However, the virtual interviews had the potential disadvantages of lack of space and privacy at home, technical issues, or a possible inability for me to support participants during uncomfortable conversations (Faize & Nawaz, 2020; Sah et al., 2020). I attempted to mitigate these challenges by having participants choose the best time for the interview to accommodate any personal and home commitments, by using a videoconferencing platform that performs well in poor connectivity zones, and by using techniques to establish trust early and reinforce that trust often (Sah et al., 2020). I did not encounter any issues with lack of privacy for the interviewee; however, I did have one interview where the technology was lagging, which required repetition of many questions and responses. In this instance I had to refer to the audio version of the interview, because the transcript was unclear at times. Further details about ethical considerations related to data collection are discussed in the ethics section.

Research population and participant recruitment. Four undergraduate digital-distance nurse educators (n=4 includes the pilot participant) within the BN program at AU were invited to participate. All four accepted the invitation and consented to participate. Purposive sampling was used to target participants from diverse clinical nursing practice backgrounds, who were all experienced in the field of digital-distance nursing education. The pilot interview data were included, because both the participant and I concluded that that interview was valuable to the study. A follow up interview was conducted with the pilot participant to account for the revisions made to the interview guide after the pilot interview. Each audio recorded interview lasted from 60–90 minutes. After each interview I wrote field notes about the interview conversation that

included my observations and reflections regarding the interview experience (Cohen et al., 2018).

The participant recruitment advertisement was distributed to the participants I had chosen to invite through purposive sampling. Inclusion criteria included: current educators in the undergraduate nursing program having taught at least three digital-distance courses. The recruitment advertisement provided my professional email and phone number for contact (see Appendix D). All four potential participants invited consented to participate. Participation was voluntary, an incentive of a $50 gift card was provided, and participants were advised they could withdraw prior to their interview analysis being added to the cross-interview thematic analysis.

Phase 2 data analysis

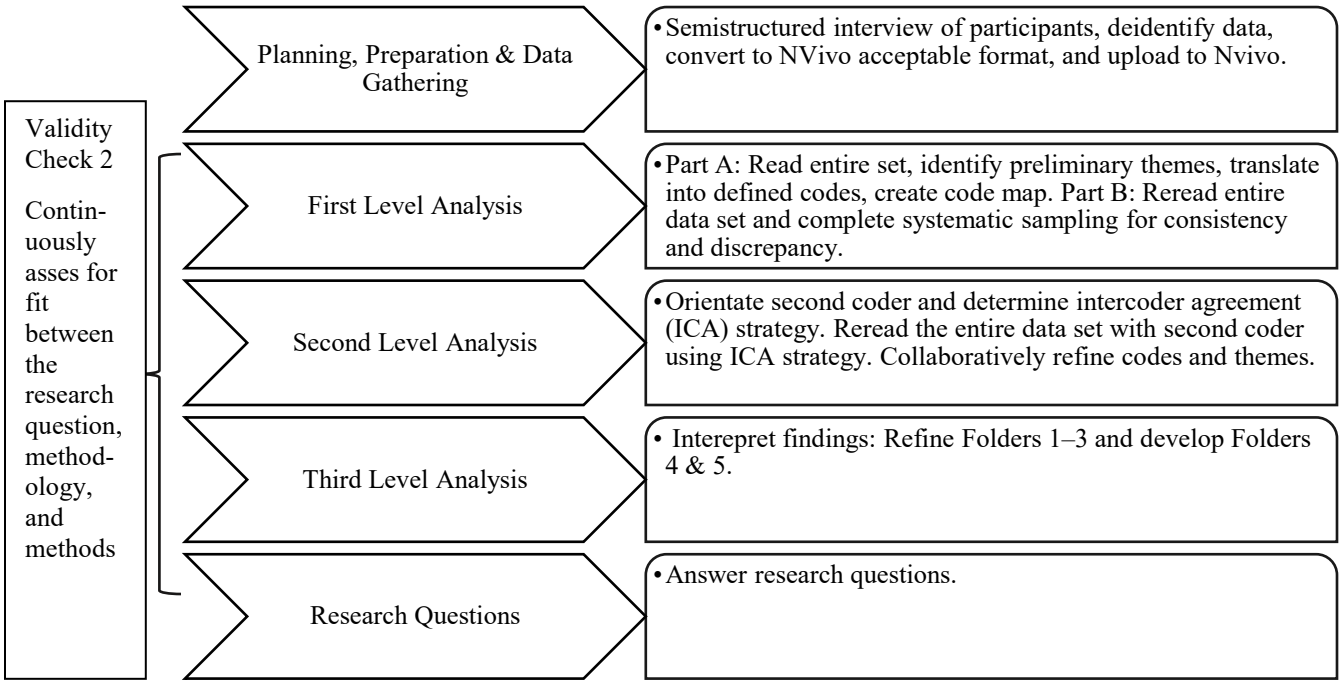
Thematic analysis is an appropriate method to explore interview data for latent or implicit meaning (Morgan, 2022) and to answer the research question and subquestions (Higgins & Goodall, 2021). Because I had gained an understanding of applied thematic analysis during the first phase, I continued using applied thematic analysis in Phase 2. Applied thematic analysis remained a strong choice of analysis for interview data and it facilitated me, as a novice researcher, to use a clearly laid out, transparent, and reflexive approach, which enhanced rigour and reduced potential bias (Guest et al., 2012; Mackieson et al., 2019). As the second phase of the study was meant to refine the initial system model to become the working model, I moved from a holistic understanding to a more detailed understanding (Castellani & Hafferty, 2009). I also moved to a data analysis that involved a combination of explicit and implicit themes.

For Phase 2 I worked with a second coder in the applied thematic analysis technique. A second coder supported the validity of the applied thematic analysis technique by reducing bias, particularly when exploring implicit themes (Guest et al., 2012). I used the stepwise approach to

applied thematic analysis; however, because I used a second coder in Phase 2, the steps are slightly different from Phase 1. I describe the Phase 2 steps in Figure 5.

Figure 5

Phase 2 Applied Thematic Analysis Approach



(Guest et al., 2012)

Planning, preparation, and data gathering. I completed the planning, preparation, and data gathering step as discussed previously. I completed four interviews. After the first two interviews were completed, I assessed for overall development of preliminary themes as discussed under Validity Check 2 in this chapter. I then moved onto interviews for the final two participants, before loading the deidentified and anonymized transcripts to NVivo (version 12.3). Each transcript was loaded as a separate case into NVivo.

First level of analysis. As with Phase 1, I approached the first level of analysis in two parts: Part A and Part B.

Part A. I followed a process similar to the one I used in Phase 1, in that I read all four interview transcripts to gain an understanding of preliminary themes. As in Phase 1, I used structural themes to create an outline for the line-by-line transcript coding. As discussed in the case-based section of this chapter, I used a similar technique to cross-case analysis by looking for similarities and differences amongst the findings of each interview analysis to support my collective thematic analysis of interviews. The four case-code maps were then reviewed and compiled to produce a codebook that reflected similarities and left differences or outliers as individual codes. As in Phase 1, I developed the codebook from NVivo's hierarchical levels of nodes and relationships.

Part B. Part B is where I completed the systematic sampling for Phase 2. Like the process in Phase 1, I worked within a new NVivo project with uncoded files. I then redid the coding analysis using the finalized codebook from Part A. I cross-compared the complete document coding from Part A to this systematic sampling. I was able to score a 90% consistency of sampling to the original coding. Errors made were mostly human errors such as miscoding on the sampling round; whereas, the complete document coding was correct. Two other errors that were deemed very similar were also noted regarding themes. In response, I collapsed the two similar themes in the codebook. I chose to implement systematic sampling prior to bringing in a second coder to ensure that I could assess that the codebook was well developed and refined.

Second level of analysis. At the second level of analysis, I brought in my cosupervisor, who was familiar with my dissertation and topic, as a second coder. The codebook provided the coding scheme, definitions of each code, examples of text that applied to the code, and instructions on using the code. I met with the second coder and orientated them to a contextual understanding of the research, the system under study, and the codebook. Coding segmentation

of text was negotiated between myself and my supervisor with the aim of preserving the context of the original transcript (Guest et al., 2012).

Due to the second coder being unfamiliar with NVivo, the coding process for the second level analysis was completed in Microsoft Word using the comment and highlights feature. We also collaboratively discussed an intercoder agreement (ICA) process (Guest et al., 2012). We used a negotiation method whereby we coded 1/3 of a transcript together to ensure congruency and understanding, before separating and coding individually with periodic collaborative review for ICA, wherein we negotiated and ensured mutual understanding (Guest et al., 2012). The ICA process was amenable to both of us and aligned with recommended ICA practices for applied thematic analysis (Guest et al., 2012). Discrepancies were few, and those that did occur were discussed and solved easily.

Minor wording changes for clarity were made to the codebook throughout, but there were no major changes to the already-developed codes. Upon completion of the coding, the codebook was reviewed in totality, and two emerging codes were identified collaboratively. The final thematic code book for Phase 2 is included as Appendix E.

Third level of analysis. The codebook was used as a collective analysis tool to support the evolvement of the initial model into the working model as described in Step 5 of social complexity theory. Unlike the original theorists of social complexity, who discussed adding to the model as research is collected, I was too new to the process and so approached model evolution at the completion of my thematic analysis.

Working model, Folder 2: Web of social practices. Similar to Phase 1, I used thematic mapping by revisiting the whiteboard sketches I had previously developed for my initial model

to refine the web of social practices folders for Phase 2 (Maguire & Delahunt, 2017). Several iterations were undertaken until a good fit was assessed by ensuring the applied terminology made sense to the themes and codes, and the evidence supported the folder (Maguire & Delahunt).

Working model, Folder 3: Network of attracting clusters. Again, I used both the thematic mapping from the analysis and the web of social practices folder to evolve the network of attracting clusters (Maguire & Delahunt, 2017). Three iterations were undertaken until a good fit was assessed (Maguire & Delahunt).

Working model, Folder 4: Environmental systems and forces. As the environment folder was briefly introduced, but not developed, I reviewed both code books in their entirety, before again using thematic mapping by sketching on a white board to build the folder (Maguire & Delahunt, 2017). I assessed for fit as suggested by Maguire and Delahunt.

Working model, Folder 1: Field of relations. I used the web of social practices, the network of attracting clusters, and the environment folder to create the field of relations folder.

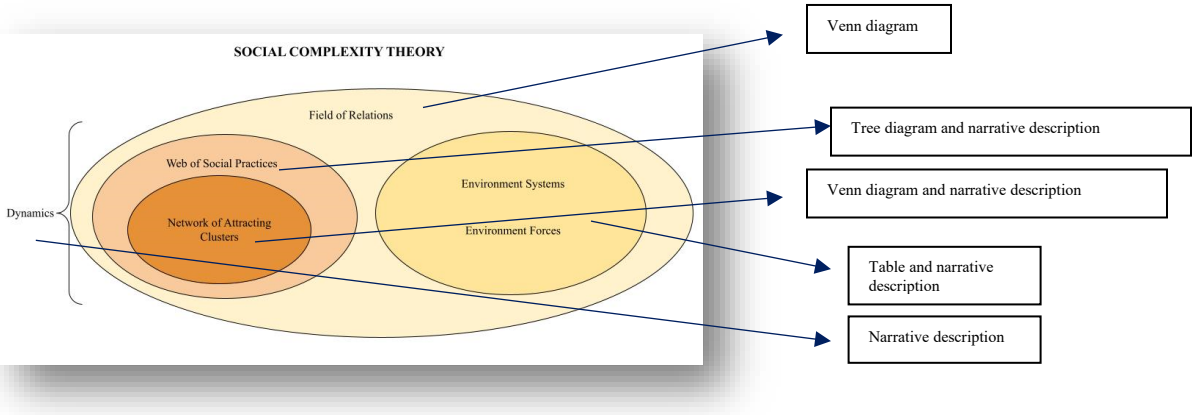
Working model, Folder 5: Dynamics. Unlike the previous folders where I used thematic mapping, I found that I needed to approach system dynamics differently. Here I colour-coded to create groupings, which is also a technique from Maguire and Delahunt (2017). The dynamics folder was finalized when the themes and codes and the evidence supported each grouping within the folder (Maguire & Delahunt).

The results section contains the various visual diagrams and narrative thick descriptions of the working model of the system, based on Castellani and Hafferty's (2009) recommended strategies to visually represent and discuss each folder. For example, a Venn diagram is

recommended to visualize the field of relations while a tree diagram is recommended for the web of social practices. Recommendations are shown in Figure 6.

Figure 6

Communication of Five-folder Findings



The final step for Phase 2 is for me to answer the research question and subquestions exploring open pedagogy in digital-distance undergraduate nursing education in AU. I complete this step in Chapter 5.

Validity Check 2. The Phase 2 validity check (which is discussed in the rigour, reliability, and validity section) happened simultaneously with the Phase 2 analysis (Castellani & Hafferty, 2009). After completion of the first two interviews, I reviewed the transcripts to get a sense of the preliminary themes and noted that they were developing but there was not yet a sense of redundancy, which is associated with data saturation. I therefore moved through two more interviews to achieve a the sense of redundancy in themes that indicated saturation. Though some qualitative theorists have argued that saturation is never entirely possible (Sebele-Mpofu, 2020), I viewed saturation as the point when further interviews no longer changed the overall themes to be applied to the model (Castellani & Hafferty, 2009).

Ethical Considerations

Undertaking research was a privilege guided by overarching ethical principles that related to my role as a researcher and how I worked with my participants as key informants in Phase 2. I accepted Davies and Dodd's (2002) argument that "Ethics exist in our actions and in our ways of doing and practicing our research; we perceive ethics to be always in progress, never to be taken for granted, flexible, and responsive to change" (p. 281).

Working with participants

In this study, I worked closely with participants, and it was vital that I approached my role as a primary investigator respectfully, intentionally, and safely. I undertook training, self-study, and mentorship opportunities to prepare me to engage ethically with participants. Initially I reviewed and completed the Tri-Council Ethics (2019) certificate. I also reviewed my doctoral institution's policies related to research ethics (Athabasca University, 2017) to ensure my research integrity, ethical conduct, and honesty. I gained qualitative research experience and worked with a mentor colleague during 2022 and 2023 as a coinvestigator in a separate study. Finally, I reflected on the importance of acting with regard for persons, concern for their welfare, and also to abide by principles of justice (Panel on Research Ethics, 2019; Woo, 2018, p. 82).

Ethics approval. Prior to seeking institutional ethics approval, I asked the Dean of the Faculty of Health Disciplines if this would be an appropriate and welcome study. I provided the Dean with a concise study description and offered to meet virtually to address any questions and concerns. The Dean was agreeable to my study. This step was essential to attain program level approval and further relationship-building and trust before seeking institutional level ethics

approval. I then attained approval from the Research Ethics Board (REB) of AU before initiating participant recruitment.

I embarked on ethical data collection with interviews that I recorded, and then transcribed the interview data collected through the digital transcription available within the videoconferencing platform. I used a secure videoconferencing platform and password-protected each session for privacy and confidentiality. I ensured data storage, consent processes, raw data access, and assignment of identifiers was compliant with AU REB standards.

Insider research. In my role as a researcher who is also a digital-distance nurse educator, I was careful to recognize the impact of being an insider with preconceived notions related to the research question. I do not try to suggest that I was able to separate who I was from this research, as that would defy my critical realist paradigm; instead, I used the reflexive journal as an essential tool for increasing my awareness of my potential biases related to the research by articulating my lens on the research and dissertation.

Mitigation strategies. To best manage the power differential between researcher and participant, I spent time reflecting on myself and the processes to better understand and articulate the power differential(s) between myself and the key informants (DeCarlo, 2018). Throughout the research process, I sought counsel from my supervisors concerning ethics. Participants were contacted through publicly available email addresses and could choose to accept or not accept my invitation by contacting me through email. I consciously facilitated power redistribution by having the key informant choose the time and date for the interview (DeCarlo, 2018). Finally, I followed the interview ethics of "trustfulness, openness, honesty, respectfulness, carefulness, and constant attentiveness" (Davies & Dodd, 2002, p. 281).

I built relational practice during the interviews as well as in the pre- and postinterview time by using professional and collegial language and active listening (DeCarlo, 2018). I protected interviewees' privacy and confidentiality by removing all identifiers (such as institutional names, course names, and any specifically unique information); in addition, participants were asked to choose a pseudonym for themselves (DeCarlo). Participants were also offered the opportunity to review their interview analysis for accuracy and meaning, with me providing their interview transcripts to facilitate recall, if wanted (DeCarlo, 2018); however, no participant chose to review their interview analysis. Participants were able to remove their consent to participate, without penalty, prior to me performing the collective interview analysis. All participants chose to remain in the study.

Rigour, Validity, and Reliability

Rigour for this qualitative study was demonstrated through validity and reliability as defined by Morse:

> To state that reliability and validity are not pertinent to qualitative inquiry places qualitative research in the realm of being not reliable and not valid. Science is concerned with rigour, and by definition, good rigorous research must be reliable and valid.
>
> (1999, p. 717)

Rigour is defined differently in other fields and approaches, so carefully defining my terms was essential. I accepted the following definition of reliability:

> we aim for a reliability in our data based on consistency and care in the application of research practices, which are reflected in the visibility of research practices, and a reliability in our analysis and conclusions, reflected in an open account that remains

> mindful of the partiality and limits of our research findings. (Davies & Dodd, 2002, p. 280)

I defined validity as how, through my research design, analysis, and judgment, I sought to understand the phenomena as demonstrated through my investigation, questioning, and theorizing after the study was completed (Cypress, 2017). Finally, validity was procedurally assessed through validity checks as described next.

Phase 1 validity check

The first validity check happened after I developed the initial model. I assessed the initial model for:

- alignment of the research question with the initial model;
- presence of social and complex characteristics as per the assessment questions in Appendix F;
- unforced modelling of the web of social practices;
- unforced relationships of attracting clusters; and
- application of social complexity theory terminology.

(Castellani & Hafferty, 2009, pp. 213-216)

The following is a summary of the validity check I completed after Phase 1. I had a good sense of open pedagogy operationalization in reviewing my overarching research question and considering my findings to that point. I had a beginning sense of which mechanisms nurtured, and which mechanisms challenged, open pedagogy. As described, in the first three folders of social complexity theory I had a detailed understanding of elements and relations, how these came together as social practices, how the social practices coupled, and finally, created the network. Though not needed in Phase 1, I also had preliminary findings for the last two folders

of social complexity theory. Thus, I was confident from the assessment that my methodology positioned me to answer the research questions and subquestions.

The validity check was positioned so that I could assess if the system was socially complex by exploring if the system held together without being forced and if the terminology of social complexity theory made sense for describing the system (Castellani & Hafferty, 2009). After answering the questions by Castellani and Hafferty (2009), I did not believe the model was forced, and that it held together. Also, I concluded that the terminology of social complexity theory adequately described the research phenomena under study. The Phase 1 validity check assessment was used to make alterations and revisions to the research questions and approaches as previously discussed in this chapter.

Phase 2 validity check

The Phase 2 validity check happened simultaneously with the data analysis in Phase 2 (Castellani & Hafferty, 2009). Throughout Phase 2 it was crucial for me to maintain validity by not forcing elements into the model (Castellani & Hafferty, 2009). As I was confident of the methodology and research questions from the Phase 1 validity check, Phase 2 focused more on building the model from a strong foundation. Model-building was approached in a stepwise process, and I trusted that the pieces would fall into place and that the final working model would, essentially, self-organize (Castellani & Hafferty, 2009).

Reliability

As a novice researcher, I chose to work within critical realism, generative causation, and (social) complexity theory as they fit well together (Blackwood et al., 2010; Castellani & Hafferty, 2009; Clark, 2013a; Pawson, 2002; Pawson et al., 2005). Castellani and Hafferty (2009) encourage researchers to use data collection and analysis strategies that get the data

needed to build the systems model, which led me to use institutional documents and key informants with an applied thematic analysis.

As the study was exploratory and inductive, I anticipated and planned for a transparent research process and ensured I communicated the rationale for proceeding through the phases and steps in my research journal. Therefore, I intentionally designed my study directly in alignment with the Castellani and Hafferty (2009) processes for establishing the conceptual framework and building of the five folders. I based my rationale for my choices on these authors' set steps, phases, and strategies to build the folders.

As the researcher, I established and communicated definitions of all terms throughout the investigation to relevant parties such as with participants during interviews, and my co-supervisor during coding. I worked closely with my cosupervisors to clearly define and articulate terms when working with participants and in the research report (Cohen et al., 2018). I documented how, or if, definitions evolved throughout the study in my research journal. For example, I revisited the definition of open pedagogy in the fall of 2022 after my proposal writing, because I noted an increase in the literature surrounding open pedagogy. As such, I was able to further substantiate my definition of open pedagogy using characteristics that were less prevalent in the literature prior to the fall of 2022. In addition, I used multiple forms of evidence to check for convergence of themes (Leedy & Ormond, 2014) or what is termed triangulation of data in social complexity theory (Castellani & Hafferty, 2009; Clark, 2015).

Finally, I kept a reflexive journal, separate from my research journal, wherein I reflected on my role as the researcher. As the investigator, I consistently remembered that I was the research instrument and that every choice I made, every action I took, or did not take, influenced the research process (Davies & Dodd, 2002). I did not view reflexivity as simply a change in the

research plan or as a reaction to poor test results or ambiguous findings. Instead, I used reflexivity to examine my personal ideas and to carry on an open discussion and comparison of my personal research experiences (Davies & Dodd). I also ensured that I was intentionally reflexive about "unexpected or contradictory research outcomes as points of knowledge and information, rather than just failures in research methods" (Davies & Dodd, p. 286).

Resource Requirements and Timeline

I needed access to WiFi, a computer, a NVivo software package, a video conferencing platform, and transcription capabilities. I needed funds to provide participants with honorariums and to pay open access fees for publication. I had access to WiFi, a computer, a video conferencing platform with transcription capabilities, and a NVivo licence. In addition, partial funding was obtained from an award received in January 2022, a Western North-Western Region of Canadian Association of Schools of Nursing (WNRCASN) 2021 Graduate Student Research Grant (see Appendix G). This grant was used partly to provide honorariums to participants and will also be used to pay open access fees for publication of results after my successful dissertation completion. I did not require funding for transcription (as previously budgeted for in the proposal) as this was part of the TEAMS platform. The research budget is presented in Appendix H and includes funding from WNRCASN.

The timeline for this study is outlined in Appendix I. In addition, the timeline considered the WNRCASN grant and the Open Education Fellowship requirements regarding the presentation of the manuscript (included as Appendix A). The manuscript was originally intended to be part of a dissertation using manuscript format; however, as the research evolved it was better suited to a traditional chapter dissertation. I developed my work plan for the study based on the phased approach of social complexity theory.

Dissemination

I have published one manuscript from this investigation. Upon dissertation completion I will develop two more articles based on the findings of this research. These manuscripts will be submitted to international, double-blind, peer-reviewed journals. In addition, I will present at the WNRCASN 2024 conference and the Open Education Conference of 2024.

Scope and Limitations

Scope

Scope refers to the depth and boundaries of a study specific to the study population and point of time (Last, 2019). Findings from this study were developed from institutional sources ranging from documents representing the greater university to specific course syllabi to practicing nurse educators within the program. Document analysis used in Phase 1 primarily focused on intentional understanding through aims and policies, and it was more general as it included and represented a range of documents, which limited depth. However, Phase 2 was more in-depth and collected data specific to practice within the nursing program. In collecting the Phase 2 data I worked with nurse educators who had varying nursing experiences, roles that focused on teaching, and roles that balanced teaching with research. Though all participants demonstrated open pedagogical practices, their experience in digital teaching and learning varied. Finally the working model created focused on one higher education institution (AU) within one program (BN) from the perspective of the educators, which set tight boundaries while creating an opportunity for significant depth of knowledge into one specific system.

Limitations

Limitations describe elements that are outside the researcher's control, but which may influence the study (discoverphds, 2020). I remember first discussing my interest in open pedagogy with colleagues, who looked at me with question marks, because open pedagogy was,

and remains, a developing field of study. The gap in research in relation to practice of open pedagogy remains one of the greatest limitations to this study, because it meant there was limited literature in which to ground my perspective and my research approach. Though open pedagogy as a field of study has shown promising growth, there remains a dearth of knowledge to scaffold from, particularly within digital-distance undergraduate nursing education. In the literature, there is also a significant focus on open pedagogy as a practice with open educational resources (OER), which is a challenge for nurse educators, because there are a limited number of relevant OER available for nursing students. As well, my application of social complexity theory methodology was that of a novice, because I was working from a mostly theoretical understanding of this approach. Examples of applied social complexity theory in the fields of health care and education are limited. As such, gaining mentorship in my methodology choice was challenging. However I sought advice from an experienced methodologist at several points during this study to ensure I was understanding and applying the methodology correctly. Finally, my novice research abilities limited the quality of the research process, because I was honing my skill set and techniques throughout the study.

Summary

This chapter presented a systematic and detailed description of the research design, the research goals, and how I achieved these goals. With this research design and the resulting practices, I developed a study to depict how open pedagogy was operationalized, nurtured, and challenged in digital-distance undergraduate nursing education at AU. In the next chapter I present my findings through visuals and narrative descriptions to illustrate the working model of the complex system under study. This work provides an in-depth understanding for educators,

administrators, researchers, and others about the mechanisms underlying how, why, and in what context, open pedagogy is operationalized, nurtured, and challenged.

Chapter 5. Findings

Introduction

In this chapter I report how I collected and analyzed data in each of the five folders (i.e., the field of relations, the web of social practices, the network of attracting clusters, the environment, and the system dynamics) to answer the research question and subquestions. I start by answering the subquestions as they address each folder specifically. I then answer the overall research question in three parts by describing:

1. operationalization,
2. nurturing, and
3. challenging of open pedagogy.

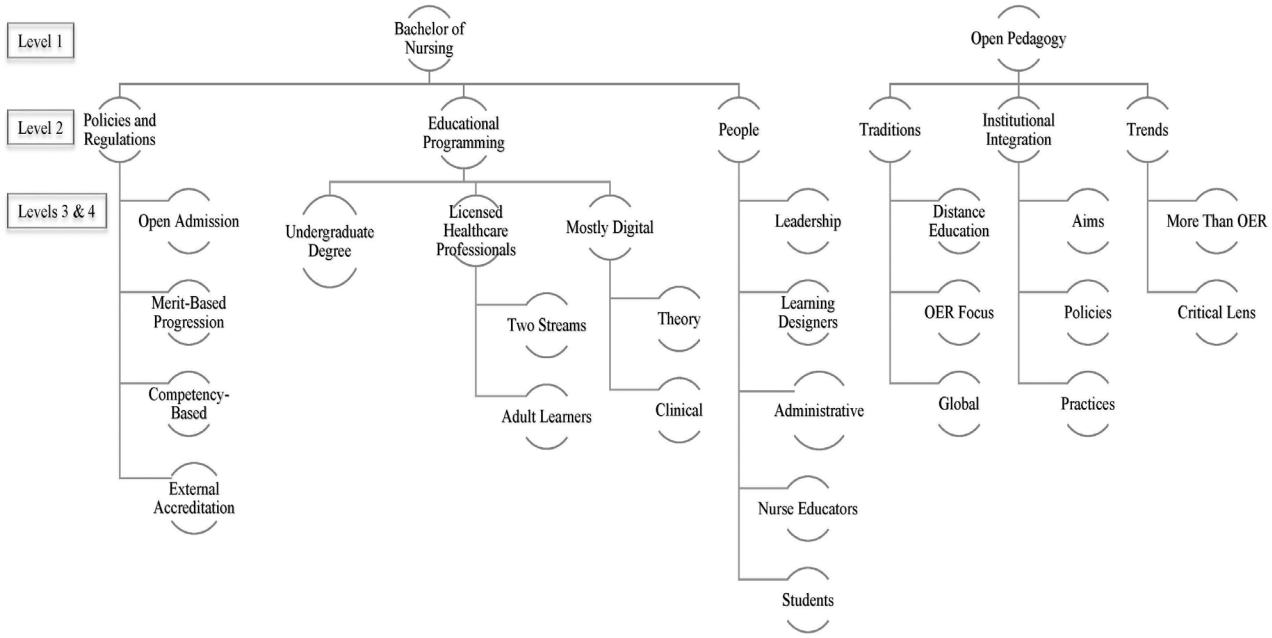
I provide quotes from the document analysis in Phase 1 and quotations from the four participants using the pseudonym initials AT, VM, CR and JY. Pseudonym initials have no connection to participant identity. To further protect anonymity, quotations containing identifying information have been deidentified by using generic term substitutions.

Folder 2: Web of Social Practices Analysis

Because Folder 1 is the culmination of Folders 2, 3, and 4, I describe it after discussing those folders. Folder 2 contains the web of social practices. In Folder 2 I answer this study's subquestion: What are the social practices within this social complex system? Figure 7 illustrates the web of social practices of open pedagogy within the Bachelor of Nursing (BN) program at Athabasca University (AU).

Figure 7

Web of Social Practices



The web is depicted as a visual organizer of the key social practices of the system I investigated. The web of social practices was the first folder that I created when applying the thematic analysis to the social complexity theory framework. The web is broken down into hierarchical levels of social practices starting with Level 1, which has the largest number of social practices when thematically mapped in the third level of analysis. The preceding visual is representative of my findings. I then used thematic mapping to organize Levels 2, 3, and 4, which subdivide the social practices of the higher level ordering. For example, Level 3 social practices subdivide the social practices of Level 2, and Level 2 social practices are subdivided from Level 1 social practices.

Level 1: Social practices

As depicted in Figure 7, first level ordering describes the two major social practices of the BN program and of open pedagogy. I analyzed them to be the major social practices that make up the system of open pedagogy in AU. As per my analysis, I then subdivided the Level 1 social practices into smaller social practices in Level 2. Here I first discuss the major social practice of the BN program through its different hierarchical levels. I then move on to discuss the other Level 1 major social practice of open pedagogy.

Level 2: Social practices of the BN program

As per the thematic analysis, I further subdivided the first level social practice of the BN program at the second level and organized them as the social practices of policies, regulations, educational programming, and people.

Level 3 & 4: Social practices of the BN program

As per the analysis, I further delineated each of these second level headings under the BN program at the third and fourth levels of order. Within the second level of policy and regulations, I evaluated the third level of social practices to be open admission policies, merit-based progression, competency-based programming, and external accreditation of the program.

Next, I examined the third level ordering that is organized under educational programming. I determined the third level social practices to be providing an undergraduate degree for licensed healthcare professionals, and that is mostly done using digital delivery. I did not establish any fourth level ordering under the social practice of attaining an undergraduate degree. I analyzed fourth level ordering under programming built for licensed health care professionals as two streams of learners taking completion of the BN. I made the student stream dependent on the license that students currently held. I also noted that in the fourth level of order

there was an emphasis on adult learning practices, because licensing requires prior postsecondary education. Under the final third level of social practices educational programming, I determined that it focused on a mostly digital educational experience. Thus, a considerable portion of the BN program is offered by the digital-distance mode with only clinical courses requiring face-to-face components. I further delineated mostly digital learning to Level 4 social practices by noting where courses were either a theory or a clinical.

I determined the final second level of order in the BN program as the people of the BN program. I analyzed the third level of order for people to include the BN leadership team, learning designers, administrative staff (inclusive of advisors), nurse educators, and students. This completes the full description of the organization of the Level 1 major social practice of the BN program.

Level 2: Social practices of open pedagogy

I now describe the hierarchical levels of open pedagogy, the other Level 1 social practice. In the major social practice of open pedagogy, I subdivided and organized the second level order of social practices as traditions, institutional integration, and trends.

Level 3: Social practices of open pedagogy

Unlike the BN program, which I delineated to level four; open pedagogy is subdivided into only Level 3 social practices. I found no Level 4 social practices. I analyzed that the third level of order for the Level 2 social practice of traditions is rooted in distance education, previous emphasis and focus on practice within open educational resources (OER), and the connection to global education accessibility.

Next, I determined the third level of order under the Level 2 social practice of institutional integration to be aims, policies, and practices. Aims encompassed the overall

mission, vision, and values as evidenced in the thematic analysis. Policies focused on findings of institutional and program policies that aligned with open pedagogical practices. Finally, practices focused on evidence of open pedagogy enacted in the practices of teaching and learning.

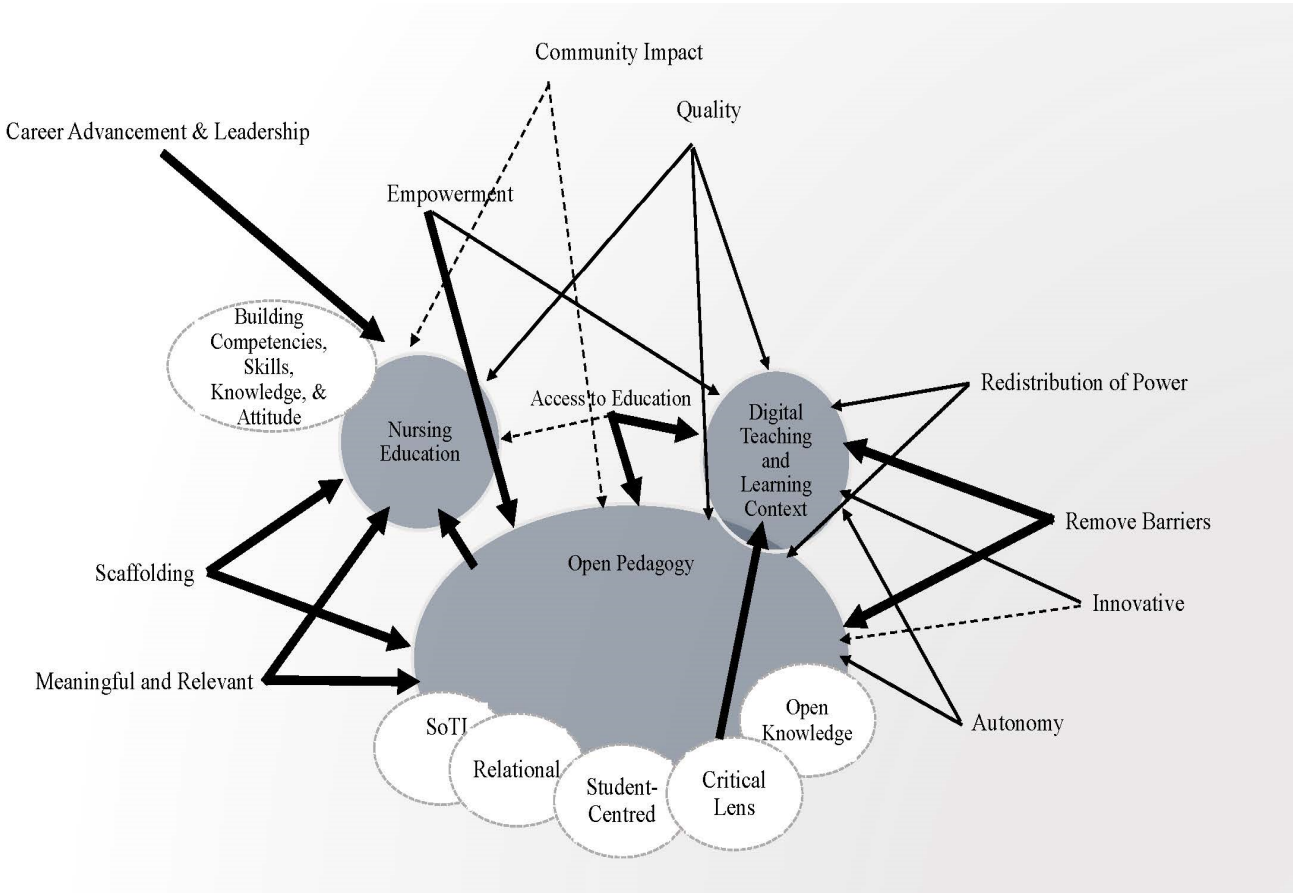
Finally, I organized the third level of order within the second level of order of trends under the two key trends of open pedagogy being more than a result of OER use and the importance of a critical lens on practice. This completes the full description of the organization of the Level one major social practice of open pedagogy.

Folder 3: The Network of Attracting Clusters Analysis

After establishing the web of social practices, I was able to determine the network of attracting clusters through thematic mapping. In this folder I looked for the significant couplings that occurred in the web of social practices. I explored how open pedagogy happened when the system elements come into relationship with one another, answering the subquestion: What are the attracting clusters (dominant ways)? Figure 8 provides a visual of my findings in the network of attracting clusters of open pedagogy within the BN program at AU.

Figure 8

Network of Attracting Clusters



Major attractor points

The grey circles represent the major attractor points of the system. Major attractor points were couplings and social practices found in the data that were central to the system's functioning. (Castellani & Hafferty, 2009). In studying the thematic analysis and how the social practices organized within the web of social practices, I sought out the couplings and social practices that were essential to the system working. I determined that the major attractor points were nursing education, open pedagogy, and the digital teaching and learning context. Open pedagogy and the digital teaching and learning context were also coupled to one another.

Strong clusters

In Figure 8, I used white circles to represent couplings that were strongly clustered to the attractor points, which meant they were closely linked to the effective functioning of the attractor point (Castellani & Hafferty, 2009). I determined that building of competencies through skills, knowledge, and attitude was strongly clustered to nursing education. I also analyzed that development of the SoTL, relational focus, student-centredness, using a critical lens, and embracing open knowledge was strongly clustered to open pedagogy.

Minor couplings and relationships

I represent more minor couplings as text outside of the attractor points in Figure 8. Minor couplings included career advancement, empowerment, access to education, community impact, focus on quality, redistribution of power, removal of barriers, being innovative, supporting autonomy, meaningful and relevant teaching and learning practices, and utilizing scaffolding. Each minor coupling has arrows that connect it to the different attractor points. The thickness of the arrows represents the strength of the relationship found in the data analysis. I determined strength through the relational connections made in my thematic analysis. Relational connections were both implicit and explicit. I determined relationships to be explicit when two concepts occurred within the same text segment. I defined an implicit relationship to exist when the concepts were connected, but only if I made the necessary inference.

I indicated three levels of strength. For example, career advancement and leadership are strongly connected to nursing education, which I depicted by using a thick arrow. The second arrow level of strength shows a moderate relationship. For instance, I determined a moderate relationship between redistribution of power and the attractor points of open pedagogy and the

digital teaching and learning context. Finally, I demonstrated a weak relationship through a dotted line and arrow, as can be seen connecting innovative to open pedagogy.

Folder 4: Environment Analysis

In Folder 4 I answer the subquestion: What are the internal and external environmental systems and forces?

Environment

In examining the system of open pedagogy in the BN program at AU, I determined that it was situated amongst many different environments. A summary table for referencing these environments is presented in Table 4.

Table 4

Environments

Environment
Internal
Open Canadian Digital-Distance University
Faculty of Health Disciplines
Bachelor of Nursing Program
Bachelor of Nursing Program Nurse Educator Community
External
Provincial Nursing Regulatory Body
National and Provincial Nursing Education Accreditation Bodies
Nursing Council of State Boards of Nursing
Health Care Context

I noted that there was a mix of both external and internal environments. Internal environments included AU as in institution, the Faculty of Health Disciplines, the BN program,

and the BN program nurse educator community. I considered the higher education institution and faculty as internal because the BN program exists within the larger environments of the institution and faculty and cannot exist independent of them. As another expected observation within social complexity theory, I also noted that some of these environments were also social practices (Castellani & Hafferty, 2009). I analyzed that the external environments were the provincial nursing regulatory body; the national and provincial nursing education accreditation bodies; the Nursing Council of State Boards of Nursing, which runs and administers the national licensing exam; and the health care context.

Environmental forces

Internal and external environments were noted in the data as contextual influences in a variety of ways. Noteworthy environmental forces that I determined as influential on the system were the impact of the global pandemic specific to the educational community; open mandates, policies, and practices specific to increased flexibility with assessment practices; and mandates, policies, and practices to increase equity, diversity, inclusion, and reconciliation. Finally, the last two environmental influences I analyzed as environmental forces concerned the impact of the National Council Licensure Examination (NCLEX) and students needing to meet standardized educational requirements that remain based on traditional in-person, four-year undergraduate educational programs. Table 5 provides a summary of the environmental forces.

Table 5

Environmental Forces

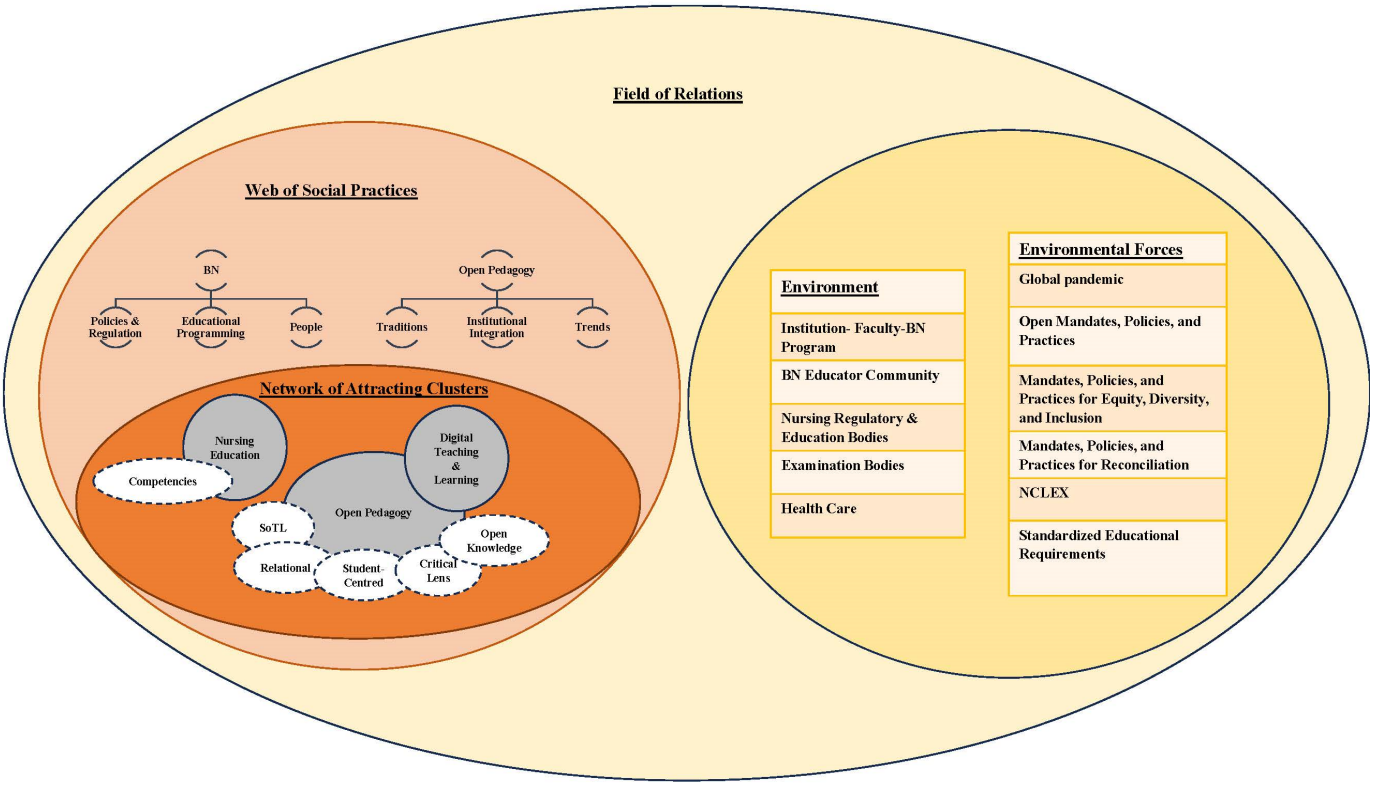
Environmental Forces
Global pandemic effects on higher education
Open Mandates, Policies, and Practices to increase flexibility with assessment practices
Mandates, Policies, and Practices for Equity, Diversity, and Inclusion
Mandates, Policies, and Practices for Reconciliation
National Council Licensure Examination (NCLEX)
Meeting standardized educational requirements based on traditional in-person, four-year undergraduate educational programs

Folder 1: Field of Relations Analysis

Completion of Folder 4 allowed me then to put the whole system together as the field of relations. In Folder 1 I present a general overview visual of the findings in Folders 2, 3, and 4. There is no new information presented in Figure 9; instead, it provides an overall picture of the major social practices, how they couple, their environments, and the impacts of the environment. In this diagram I show only the most important or highest level of findings (see Figure 9). A more detailed version of each of the folders (i.e., the web of social practices, the network of attracting clusters, the environment, and the environmental forces) can be found in the figures of the previous Folders 2, 3, and 4.

Figure 9

Field of Relations



Folder 5: System Dynamics Analysis

Folder 5 contains the "relationships, forces, and motions that characterize the play in the system" (Castellani & Hafferty, 2009, p. 177). The play in the system is termed dynamics, and dynamics happen amongst the network of attracting clusters (Castellani & Hafferty). These authors further describe play in the system as being how the network of attracting clusters interacts, how its interactions impact the system, and how the environment and the network interact.

Folder 5 answers the subquestion: What are the dynamics of the system? The emphasis is on how play in the system influences system trajectory. I determined the following as the key

dynamics that created evolution in the system relative to the major social practices of the BN program and open pedagogy (Castellani & Hafferty, 2009):

- solidifying of educators' understanding of evidence-informed digital-distance and open pedagogical nursing education practices,
- moving to increased understanding and incorporation of OER,
- strengthening the course writing and revision processes,
- strengthening the SoTL, and
- strengthening critical practices with students.

Answering the Research Question

To this point I have answered the research subquestions that I developed from the social complexity theory framework. I developed Folders 1–3 in Phase 1 to build the initial model of the system. I then moved into Phase 2 where I added to Folders 1–3 while developing Folders 4–5 to create the working model of the system. I now use the five folders I have created from the data to discuss my answer to the overall research questions. As I answer each research question, I refer to the relevant identified social practices, attractor points, environments, environmental forces, and dynamics discussed in each of the five folders. In the research question I asked how open pedagogy is

1. operationalized,
2. nurtured, and
3. challenged.

I will now discuss these three elements of the overall research question.

Research question Part 1: Operationalization

In this first part of the research question, I needed to determine how open pedagogy operated in the BN program at AU. I approach this by discussing how the key structures, social practices, and couplings set the stage for open pedagogy to be practiced. I then look more closely at how open pedagogy is operationalized.

Key structures, social practices, and couplings. The BN program is an undergraduate degree program. The requirement that RNs hold an undergraduate degree to practice is relatively new. Nursing education has moved from the apprenticeship or trade model to a mix of hospital-based training and degree programs to now requiring a degree (McDonald &McIntyre, 2019; Wytenbroek & Vandenberg, 2017). Since the early years of the 21st century, all Canadian RNs (with the exception of Quebec RNs) must achieve a degree before taking their licensing exam (an environmental force) (Wytenbroek & Vandenberg).

The BN educational program is built for learners to scaffold from their licensed health care experience to facilitate their transition to the role of a BN-prepared RN. During this transition learners work to meet the competency requirements by building the requisite skills, knowledge, and attitudes needed for the RN role. Currently there are two streams of learners completing the BN at AU who are identified in the undergraduate calendar (2022–2023). Students enter from either the post-licensed practical nurse (LPN) or the post-RN stream. In the post-RN to BN stream the program is described as "A baccalaureate degree that builds on your established nursing practice. Augment your knowledge and skills in nursing informatics, nursing research, primary health care, leadership, management, and family and community health promotion" (AU Post-RN to BN Program Home Page, 2022, para. 1). The post-LPN to BN stream program is advertised as "A baccalaureate education designed specifically for the LPN.

Continue working in your field, remain in your community, and complete your prenursing and nursing courses in our flexible learning environment" (AU Post-LPN to BN Home Page, 2022, para.1).

Students entering both streams hold professional nursing licenses that indicates that they have completed prior postsecondary education. All these students are participating in lifelong learning by returning to school. I determined that there was, appropriately, an emphasis on adult learning practices in the data. For example, the adult learning principle of autonomy was emphasized throughout the institutional and faculty level documents. BN educational programming was noted to be focused on a mostly digital educational experience meaning a significant portion of the BN program is completed by digital-distance education methods with only clinical courses requiring face-to-face components. Though the BN program does not refer to their model as a blended learning model, the BN program is, nevertheless, set up in this way. Because the BN program is a professional program facilitating educational preparation that prepares students for professional practice, the program is heavily influenced by external accreditation bodies. Furthermore, the BN program qualifies the post-LPN students to write the licensing exam that I discuss next.

The educational program is regulated by the professional nursing college, the College of Registered Nurses of Alberta (CRNA) through the nursing education program approval committee (NEPAC): "Alberta's postsecondary institutions require NEPAC's approval to provide initial and re-entry to practice programs for future registrants. This committee reviews evidence about the existing and new programs to ensure the NEPAC standards are met" (CRNA-Regulatory Committees, n.d., para. 4). NEPAC is the mandatory accrediting body in Alberta;

whereas, the Canadian Association of Schools of Nursing (CASN) offers optional and additional program accreditation.

CRNA oversees licensing and the professional practice of Alberta RNs: "The CRNA exists to protect the public's health and welfare by assuring that safe and competent nursing care is provided by licensed nurses" (Home page, n.d., para. 3). CRNA, in collaboration with the Canadian Nurses Association (CNA), sets the standard competency profile for an entry level RN and determines the expected attitude, knowledge, skills, and abilities of a novice RN (CCNR, 2018). Because learners in the post-RN -o-BN program are already licensed as RNs, licensing is not an end goal for the post-RN-to-BN learner journey. However, RN licensing is an end goal for the BN-prepared LPN. CRNA grants RN licensure after nursing program graduates, such as post-LPN to BN students, once they successfully pass the licensing exam owned, developed, and administered by the National Council of State Boards of Nursing (NCSBN).

AU is a digital-distance open university. The system studied operates within AU, and AU is home to the Faculty of Health Disciplines in which the BN program resides. As such the policies, practices, and people from this faculty influence the operationalization of open pedagogy within the BN program. Fundamental to being an open university has been the open admission policy, meaning that in the BN program, admission was unlimited and granted if the minimum qualifications were met.[1] Minimum qualifications for prospective BN students included meeting a specific minimum GPA, proof of a recognized prior health educational program, and a current Canadian health care license. The BN program is set up with merit-based

[1] Effective April 28, 2023, admission to the LPN-BN program was paused (AU, 2023b). The admission policy for the post-LPN-to-BN stream when reopened will also transition to accepting only in-province students (AU, 2023b). This policy changed after data collection and analysis were completed.

progression, meaning there are stepwise requirements students must achieve to advance to the next level in the program.

Principles of open pedagogy. I discovered principles of open pedagogy throughout the institutional and program level aims, vision, mission, values, and strategic frameworks that focus on teaching and learning. For example, within the institutional, program, and faculty level documents I analyzed I found all five characteristics of: embracing the scholarship of teaching and learning (SoTL), student-centred practices, relational practices, a critical lens, and open knowledge practices. I also observed all the five characteristics of open pedagogy within the cross-case analysis from the nurse educator interviews. In the following discussion I explore each of these characteristics as a theme and provide evidence from both the document analysis and interviews.

In my analysis, I determined that the first theme: The SoTL that is focused on the key subtheme of educators developing evidence-informed teaching and learning practices. For example, participant VM shared the following when responding to questions around incorporating the SoTL, and specifically to another subtheme of the SoTL, educator development, in their practice.

> When I was first hired, I felt like I had really strong mentorship around this from two senior educators and one leader in the program. There was such institutional strength in this area within our BN program. And that I was given resources to use before I even entered the classroom. So that's sort of a first start of what I was provided with.

Participant CR discussed the second theme of open pedagogy, a student-centred approach, when providing feedback: “What I try to do is have real openness. I try to give a lot of notes and

papers for people in terms of what they're doing wrong, what they could do differently". CR then continued discussing their teaching approach that works to build relational practice (the third theme of open pedagogy) through the use of student-centred methods in the feedback process saying:

> I convey a real openness to say, "That's a great point; I've never thought of that before," or comments like, "You are really insightful; You need to think of a graduate program down the road." But when a student is struggling, I'll say, "I really want you to do well, you know. Can we talk on the phone." Or you know, "Or would you consider the writing resource centre"; this kind of thing.

The quotation from CR also represents the subtheme of power redistribution in relational practice. The comment, "I've never thought of that before," suggests that the teacher was open to learning from the student. This openness facilitated empowerment of the learner when the teacher said to the student "You are really insightful. You need to think of a graduate program down the road." Facilitating empowerment is another important subtheme of student-centred practice. Empowerment is also a subtheme of the critical practices that I discuss next.

I determined that the fourth theme of open pedagogy, a critical lens, was operationalized related to teaching and learning as exemplified by the AU university strategic plan (2018). The strategic plan states: "By moving beyond open, we will transform lives and communities by systemically removing barriers to create a culture of inclusion in which all learners are welcome." The critical lens connected strongly to the subtheme of how the digital-distance mode can remove barriers as shared in the Dean's message: "The Faculty of Health Disciplines offers a vast range of online programs and courses to meet your needs, your lifestyle, and your schedule" (2021). Moreover, the fifth theme of open pedagogy, open knowledge practices with resources,

data, and in knowledge sharing is exemplified in the FHD faculty strategic plan (FSP) (2019), which states:

> More than 40% of the Faculty of Health Disciplines courses do not require purchased course materials, one graduate route will be zero-cost materials in 2018–19, and two OER developed by faculty are used in the Faculty of Health Disciplines.

Finally, I determined the theme of access to education that is supported by open pedagogy. For example, participant AT spoke of a BN-level initiative to increase educational accessibility by removing barriers commenting: "We are also working on a rural and remote nursing program, which is about creating even easier access for some of our northern students to try to encourage them to come. So, it's decreasing barriers even further for rural remote northern students."

In summary I analyzed the data to understand how open pedagogy was operationalized. I first determined and explained the key structures, social practices, and couplings. I then discussed evidence of how open pedagogy is operationalized. I discussed evidence of open pedagogy specific to the themes of increasing access to education with a critical lens, harnessing the SoTL, and relational, student-centred and open knowledge practices.

Research question Part 2: Nurturing

In the second part of the research question, I focused on what nurtures open pedagogy within the BN program at AU. After completing the Phase 1 thematic analysis, I had a skeletal outline to answer the question of how open pedagogy is nurtured. A lot of evidence addressing the "how" question emerged from the nurse-educator interviews. However, the document analysis was fundamental to developing the interview questions that guided Phase 2 of the study. The documents also discussed some outcomes of open pedagogical practices, and when a strong

and clear connection was made between outcome and practice, I included those document elements. For example, intention to use OER is considered a principle, value, and potential policy; whereas, stating that a course uses OER is a demonstrated outcome of open pedagogical practice.

I determined that open pedagogy was nurtured through two strong themes: nurse educator agency, and course (and resource) design and development. I found within the theme of educator agency, three prominent open pedagogy characteristics of relational and student-centred practices and harnessing the SoTL, and these became subthemes within educator agency. In examining the theme of nurturing open pedagogy through course (and resource) design and development, I determined two subthemes: the processes and practices of course design, and the development and integration of OER into courses. I then complete the discussion with a review of the less prominent themes, including nurturing open pedagogy through institutional and program aims and policies, the use of technology, and their impacts on communities.

Nurture through educator agency. A key finding of my analysis was that open pedagogy was nurtured predominantly through the agency of the educator. As previously shared, much of the nurturing themes came from the nurse-educator interviews. Moreover, specific to agency, nurse educators could speak to what they did (and were doing); whereas, the documents from Phase 1 did not focus on individual nurse-educator practices. As a researcher I was not comfortable drawing conclusions on individual nurse-educator agency based only on the document analysis.

I defined the nurse-educator agency theme as supporting and facilitating open pedagogy through teaching and learning values and practices. I coded data where teaching and learning

values and practices were discussed as inherent to, and initiated through, educator agency. For example, VM shared the following:

> Innovation isn't necessarily about a new technology, but it's about how do we bring shift to practice. And in our theory courses we're noticing that students are lacking that relational space. So how do we innovate and shift our current structure to make that more positive? Rather than adding a virtual simulation learning activity, it's adding a face-to-face time with an educator and maybe a discussion with peers.

VM demonstrated their value and practice of student-centred approaches (a subtheme of educator agency) through their suggested responsive changes to course design, while simultaneously facilitating relational practice (a subtheme of educator agency) through course design. I now discuss how nurturing of open pedagogy specific to the agency of the educator focused mostly around the three subthemes of being student-centred, using relational practices, and developing the educator's SoTL.

Nurture specific to educator agency with student-centred and relational approaches. I analyzed student-centred related data to include the following codes, putting the student at the centre of the learning experience, values, and practices that highlight the holistic persona as fundamental to learning (TEAL, 2010), and noted a shift from teacher-centric to student-centred pedagogy (Day & Beard, 2019; Zanchetta et al., 2017). VM shared their practice specific to centring the student in the learning to enhance teacher-student connections and to meet and acknowledge that each student has a unique learning journey. VM commented:

> But when it comes to theory courses for example, it is important to find opportunities to connect with that student, being kind, because it's really more about finding those

> opportunities to learn rather than—I don't care if they get a perfect score, but if they are feeling like their writing is growing. That's for me, it's a really big thing; or I don't mind rereading another paper as long as I haven't marked that past one. And I think that again puts the students first.

I determined that the subtheme of relational practice was defined by prioritizing relationships and treating relationships as integral to the learning process (Kalir, 2020). Many of the codes in the relational practice subtheme focused on the importance of connecting with students and practices that facilitate connection. For example, JY shared how they approach asynchronous, self-paced courses to facilitate connections with students saying, "I call them [the] first week, we have a bit of a chat? and then they call me. If I don't call them, they don't call me." I observed that the subthemes of student-centred and relational values and practices were often very closely intertwined throughout the analysis. I also determined that in nurturing open pedagogy through educator agency, the subthemes of student-centred and relational practices were the most prevalent subthemes and present in all nurse-educator interviews.

Relational practice did not just happen within student and educator relationships; I also observed the subtheme of relational practice amongst faculty members. In this example AT was speaking to their value of relational practice with their colleagues and its result, which was the creation of a community of practice:

> I see that happening tons within our clinical group. It's kind of exciting. Like we have a WhatsApp group now with just all the medical surgical clinical instructors, so we can ask questions, knowledge share. We share documents, for example somebody would have made-up for patient assignments, or pharmacology research, or whatever. I see a lot of that within our clinical instructor group, which is a mix of faculty and sessionals.

Nurture specific to educator agency and facilitating the scholarship of teaching and learning. Knowledge sharing as discussed by AT is a recognized way to nurture open pedagogy (Veletsianos, 2015) by facilitating the SoTL. Within my analysis of the subtheme of the SoTL, I encompassed codes that placed high value on, and facilitated, open pedagogy relative to the agency of the educator, and characterized by effective, meaningful, and principled teaching and learning values, practices, and research. I also found a strong subtheme within the subtheme of the SoTL relative to the importance of continued educator development. I observed that educator development focused on data that was coded to the on-boarding experience, on-going educator development, and availability of program resources to facilitate educator development. I also found that nurturing educator development focused on the connection of educators to current nursing practice, pedagogy through self-led strategies, professional development, resources, expertise, mentoring, and support. In the following example, JY discusses a prior experience that they have missed over the last couple years. This quotation was specific to educator development and the SoTL that focused on principled practice in teaching and learning and their use of personal reflection in and on their educator practice:

> Not to be nostalgic, but I miss so much when we spent most of our time talking about principles. And broad thinking. What is the point of what we're doing? But the big picture stuff and the things that I need to think about, about adult education and about open education and, you know, as we transitioned into, you know, from getting stuff in the mail to putting it on the computer. I learned it from my colleagues like, and I learned about it because we talked about it.

Nurture through course and resource design and development. The next most common theme focused on nurturing open pedagogy related to course and resource design and

development. Within the theme of course and resource design and development, I found the subthemes of course-writing practices and revision processes that aligned with open pedagogy principles and OER and resource development and integration. I determined that data from both Phases 1 and 2 demonstrated that evidence-informed, meaningful, relevant, and engaging course design was incredibly important. The importance was due to the student-led, autonomous approach that most BN courses employ, because theory courses are asynchronous and self-paced. Theory courses make up all but four courses of the BN program. In the following discussion I elaborate on the theme of nurturing open pedagogy in course and resource design and development through course writing practices, revision processes, and OER and resource development and integration.

Nurture specific to course writing and revision practices. Starting with the fundamental aim of open pedagogy is a way to increase access to education. The University Learning Framework (ULF) (2019) discussed specific course writing practices to facilitate access:

> Learning content will start with the premise of optimized accessibility for all learners. The design and production of learning content and experiences at the university will use Universal Design for Learning (UDL) principles, and will align with industry technical accessibility standards, to ensure that this accessibility is built into all curricula from the outset.

From the nurse-educator perspective, VM shared the importance of course design approaches that promote evidence-informed teaching and learning strategies saying: “What we're doing a lot of, because for some of the theory courses it's so much about marking, and then supporting students as they work through the content, you end up front-loading these strategies.” Here, VM

has shared an evidence-informed teaching and learning strategy that harnesses the SoTL. Furthermore, VM states another example of evidence-informed teaching and learning practices:

> I think that in making sure that the course is well scaffolded that there's really clear outcomes, and that you're not providing an assignment that doesn't match what the student should be learning. And that there's things like a rubric that would actually align with what the assignment is asking for.

In this next quotation, CR brought forth another aspect of course writing and revision that highlights the importance of facilitating relational practice and being student-centred through the specific strategy of using an engaging tone when writing courses:

> In the actual doing of the course, we try and make it relational in terms of how the course is written, and so it's kind of like, you know, "Hi student. It's just you and I, and let's go on this journey together," so we try to write it in such a way that is engaging. That we do actually a really good job of writing these courses and of trying to draw the student in, trying to engage them, trying to make it relational. Trying to enhance their learning.

Nurture specific to OER and resource development and integration. Next, I determined a subtheme specific to OER and resource development and integration related to course design and development. For example, the FHD outlines an aim to "expand OER and e-text use, incorporate OER in course revisions and development, and advocate for student choice in model of materials delivery" (Faculty Strategic Plan, 2019). As well, AT spoke to nurturing open pedagogy with open knowledge practices by valuing and integrating OER: "Actually we have a really good OER that one of our faculty members has created that we've incorporated into the medical surgical clinical, which kind of goes along with the social justice unit."

Nurture through institutional and program aims and policies. A theme that I observed as prominent in the document analysis, but less prominent in the nurse educator interviews, included findings relative to nurturing open pedagogy through general institutional and program aims and policies. In Phase 1 I coded several aims and policies regarding equity, diversity, and inclusion (EDI); and conciliation, for example the USP (2018) commits to:

> Learning from and working in partnership with Indigenous peoples, nations, and communities in our conciliation journey. As part of this journey, we seek to understand how we can more effectively support Indigenous learner success.

In Phase 2, nurse educators spoke to values around EDI and conciliation, but there was limited discussion regarding how institutional level policies and aims nurtured open pedagogy. Most nurse educator discussions were focused on the open admission policy to increase access to education as exemplified by VM who reported on "the policy around openness and admission processes that doesn't limit seats. I think one of the challenges and benefits is that you can get people who might not have thought postsecondary was an option for them."

Nurture through technology. Another theme I observed as more prominent in Phase 1, but still present in Phase 2 was nurturing open pedagogy by using technology. For example, in the FSP it states: "We continue to embrace emergent technologies in recognition that technologies enable us to create access and enhance open and distributed learning environments of the highest quality" (2019). In Phase 2 I determined that technology was a subtheme of the course and resource design and development theme. Whereas technology was a distinct theme in Phase 1, as data was added in Phase 2, it became a subtheme to course and resource design and development.

Nurture through impacting communities. Finally, in Phase 1, I determined a strong thematic finding of nurturing open pedagogy by impacting communities through the removal of barriers between institutions and communities through intentional relationship building, community service, and community stakeholder engagement. I observed this theme in the Faculty Mission and Vision (FMV) (2019), FSP (2019) and the UL F (2019). However, discussion of this concept was almost absent from Phase 2 findings.

In summary, in my thematic analysis I determined that open pedagogy was nurtured through the two prominent themes of educator agency and course (and resource) design and development. Less prominent themes that I observed related to nurturing open pedagogy included institutional and programs aims and policies, use of technology, and impacting communities. In the next discussion I answer the third part of the research question: How was open pedagogy challenged?

Part 3: Challenging open pedagogy

In my analysis I found that open pedagogy was challenged in the system in two significant ways. These were through course design and development challenges, and through internal institutional and program barriers, stressors, or areas of deficit. Other themes that arose included challenges to educator agency and educator development. Less prominent, but nevertheless present, themes included challenges from COVID-19, technology, external regulators, and cost. Findings specific to challenging open pedagogy were mostly from the nurse-educator interviews in Phase 2. Themes about challenges in the formal documents were minimal, because many of the documents demonstrated intentional aims and policies to facilitate openness in education, rather than focusing on challenges. However, again I used findings from

Phase 1 to develop my interview guide, which helped me to answer the third part of the research question about challenges.

Challenged by course and resource design and development. Just as there were ways that course design practices could nurture open pedagogy, there were also ways these elements could challenge open pedagogy that I noted across Phase 2 data. In this theme I coded data that demonstrated how open pedagogy was challenged by barriers, stressors, or areas of deficit related to course and resource design and development. As shared by JY: "The platform that we teach in in terms of, like, say, continuous enrollment. That structure is poor for engagement and relational practice when teaching. It leaves far too much to the individual."

JY speaks to the platform in the preceding quotation; however, a more fitting term than "platform" would have been the "model" as they are speaking to continuous enrollment, which in the BN program, is the model of asynchronous and self-paced theory course design. Further challenges attributed to course design are shared by AT reflecting on how the model limits ways of connecting with students, which creates barriers to relational practice in asynchronous self-paced courses. AT comments:

> So I just I found it difficult. It's definitely not my favourite. I don't make a difference marking a paper. So I think that relational practice is really challenging. I think that it's something that we try to do, you know, with like monthly check-ins and welcome letters and things like that, but that in itself sort of opens the door, but it doesn't create relational practice, right? It kind of tries to open that door, but it is a bit more challenging, especially when there's no face-to-face or phone calls, things like that.

In the preceding quotation, AT also reflected on a key subtheme I determined within this theme, which is how the asynchronous and self-paced course design impacts the structure of the educator role, and can relegate the role to what the educator, and perhaps student, perceives as "marker." Most educators explicitly stated they perceived their role to be predominantly as a marker. I determined that the subtheme of the role of the educator also encompassed a further two subthemes regarding structure of workload and how educators perceived use-of-time within their educator workload. In the next quotation CR is sharing challenges around scholarly paper marking, and they expressed the trial of being flexible to help students meet their learning needs, while also maintaining a manageable workload.

> Yeah, it's a hard one for me, and no one should be a hard no. It should be a soft no, in that we try to facilitate students with their learning. If they do not have the background support for it, like they didn't do this in their previous degree, say you know, in a different country. But on the other hand, not to the point where it breaks our backs, where we're having to mark a paper three times over so that they can get an A on it. But then when we have four or five papers to mark, then we're doing triple the work; then it becomes untenable for the educators.

Challenged by internal institutional and program barriers, stressors, or deficits. I noted another theme of challenge to open pedagogy that focused on internal institutional and program barriers, stressors, or deficits specific to open pedagogy. This theme encompassed coded data related to the structure of policy and practice that created barriers, mismatches, disconnections, or tensions compared to open pedagogical principles. Within the document analysis I observed limitations to openness in program-level documents. For example, the BN program has a limit to the number of credits that can be transferred from other institutions,

students must complete the program in a finite number of years, and many courses are not available for challenge (AU Post-LPN to BN Home Page, 2022; Post-RN to BN Home Page, 2022). With the interviews, I coded data that also exemplified barriers to open pedagogy relative to policy and practice. For instance, JY shared their sentiments about how the foundational structure of higher education limits open pedagogical practices:

> I kind of feel like we get all stuck right? I just think we missed the boat wildly on so many things, so let's just say for example, colonialism. The structures of the institution, they were built on a military model, the whole of the education system was right? The military model is in its very structure.

Challenges to educator agency. Another theme I determined that challenged open pedagogy was specific to the agency of the educator. Within this theme I found codes that I analyzed to discuss barriers, stressors, or areas of deficit in open pedagogy relative to the agency of the educator, specifically, in teaching and learning values and practices. Data I coded from nurse-educator interviews revealed a disconnect between values and practices, and I also noted stigmas and myths specific to open pedagogy and digital-distance education. I determined the subtheme of barriers to critical practices in challenges to educator agency. For example, VM shared the challenge of enacting the value of critical teaching and learning in their practices as an educator:

> Yeah, it's also, I think it's so easy, because I can picture it with a nursing lens to be like, "Oh yes, we can definitely do this," but it's hard in the teaching roles. I know that there's been instructors that haven't been very comfortable having a discussion around, and in our theory course, and in our community health course, racism, stigma, discrimination.

> Those are ongoing issues, but feeling like you can lead a discussion and have a space, safe space. It's not necessarily the easy thing to do.

VM also provided a thoughtful reflection in the preceding quotation about how there was a gap in being able to translate how they would nurse to how they would teach, when they said "I can picture it with a nursing lens to be like, oh yes, we can definitely do this, but it's hard in the teaching roles." I noted the gap to be describing the educator development process and the strategy of scaffolding new learning about developing the educator role from prior nursing practice. Challenges to educator development is the theme I discuss next.

Challenges to educator development. Educator development is an important part of the SoTL, and I determined challenges to educator development as a theme. Within this theme, data emerged that discussed barriers, stressors, or areas of deficit related to on-boarding new staff, on-going educator development, and program resources related to educator development. I observed that challenges to educator development included the subthemes of:

- lack of connection between educators and current nursing practice and between educators and digital-distance pedagogy,
- lack of professional development,
- lack of opportunities to connect with other educators, and
- lack of access to resources.

Challenges in educator development are exemplified by VM next, and specific to resource provision and opportunities to connect, build relationships, learn together, and facilitate intersubjective meaning-making.

> It was pre COVID, so we had research meetings. There were more then. I remember going to a faculty research symposium. They had some speakers, and it was a chance to mingle, and there were different faculties, and they were sharing. There was even a table set up that had books and resources that were from the university's publishing press that people could share or have for free. And it was a much more collegial and open sort of conversation space. I think those spaces have decreased as COVID has happened.

Challenges from COVID-19. The preceding quote also highlighted the theme I observed relative to the continued impact that COVID-19 has had specific to when VM shared "I think those spaces have decreased as COVID has happened." In this example, I determined barriers to open pedagogical practices with data coded specific to relational practice, and the SoTL specific to educator development. I observed that the impact of COVID-19 to the SoTL and to educator development was a more minor, but nevertheless impactful, theme that emerged.

Challenges from technology. I noticed there were other less prominent, but still impactful, themes that represented challenges to open pedagogy. One of the first of these were challenges (barriers, stressors, or areas of deficit) related to the use of technology in practicing open pedagogy. VM provided a frank discussion around the disappointment in bringing in an innovation that was meant to provide a meaningful and engaging learning experience, but which, due to limitations of the technology, was only minimally engaging.

> I also think sometimes we love the idea of innovation, but that they don't necessarily work super well. So things like the community health V-SIM is a resource that was brought in, but I find it really flat, because I think educational resources tend to be a little bit behind the innovative things like video games or simulation. The money isn't there. And so you're getting such high-quality work in a consumer field, and then if you just

> notice when issues arise or a game is lagging or things like that, educational simulations just feel slow—way more than you would get elsewhere.

I noted within this quotation that VM is qualifying level of societal value on something by noting its cost. In this case the cost for simulation products in the consumer market compared to the educational market. I found this interesting, because it also connects to an earlier quotation in the challenges section where JY discusses the foundational structure of higher education being the military structure of colonialism. Colonialism is linked to capitalism that values consumerism (Austin, 2014), which is referred to by VM in societal value as reflected by cost. Cost is the next theme of challenges to open pedagogy.

Challenges from cost. I observed the theme of internal institution and program barriers, stressors, or deficits related to the cost of open pedagogical practices. In this theme I included codes related to structure, policy, and practice that have evidence of barriers, disconnections, or tensions between cost and the practice of open pedagogy.

In the following example the role of educators is looked at for cost effectiveness. For nurse educators in the BN program, clinical teaching is predominantly teacher-led and time-intensive, and thus, costly. Whereas the theory course model (asynchronous and self-paced) is at scale and less time intensive for educators, because it is student-led, this model is more cost-effective. I exemplify this through the following discussion from CR. CR recognized the need for educational systems to manage cost when they share: “See I think this is the challenge of what is cost effective and what is not.” CR then elaborates on cost effectiveness within the teaching-focused role and the reality of educators needing to manage their time: “For teaching intensive roles, you have a clinical course, you've also got a theory course, but the clinical course takes so

much more time." CR explains that managing time, means choosing to prioritize time in their educator role within the clinical course:

> So then we've got to squeeze out a little extra time where we can and so then it can be squeezed out of the theoretical course; we do the basic minimum so that we can do appropriate justice to the clinical because the students need me in clinical."

Challenges from external regulators. Within the final theme in challenges, I coded for data that discussed barriers, stressors, or deficits related to external bodies of nursing, nursing education, and higher education. I included codes related to a mismatch, disconnection, or tension between nursing practice regulators, nursing education approval boards and higher education approval boards, and the institution or program expectations, mission, vision, and values. VM spoke to feeling like there is a disconnect between the institutional aims and the standardized competency profile expected of the new RN saying: "It's interesting, like at an institutional level, I don't feel as connected to institutional practices, because I think our BN program takes so much of our learning outcomes from competency-based requirements from the our nursing college regulator."

In summary, the two most prominent themes that created challenges to open pedagogy were course design and development, and internal institutional and program barriers, stressors, or areas of deficit. I also discussed how there were noted challenges to the themes of educator agency and educator development. Finally, I determined the smaller, but impactful, themes to be the challenge of COVID-19, technology use, cost, and external regulators.

Chapter Summary

The findings chapter presented data analysis and interpretation organized according to the five folders of social complexity theory. Analysis of these folders created a working model of the

socially complex system of open pedagogy in the BN program at AU. The study subquestions were specific to social complexity theory and were answered within each folder. These results were then applied to the overall research question, which was answered in a three-part manner that explored operationalization, nurturing, and challenging of open pedagogy.

Chapter 6. Discussion, Implications, Limitations, Future Research, and Conclusion

In the following chapter I provide an overall discussion related to the operationalization, nurturing, and challenging of open pedagogy. I begin by discussing varied sources of evidence and sharing reflections on what I learned from different sources. I follow this with a discussion that explores the proverbial space (often called "gaps") that can develop between aims and intentions, between practices and outcomes. I then discuss educator agency, by educator development, and reflections about course design, before delving the influences of the external professional bodies of nursing education. I next draw from these discussions to describe the implications of my study and related recommendations. The first recommendation I discuss is evidence-informed, rigorous, and responsive course design. Secondly I suggest thoughtful self-reflection to harness both strengths and areas of growth related to teaching and learning practices. Thirdly I discuss application of accountability practices to minimize the gap between intentions and practices, and finally I emphasize the value of the social complexity theory approach to research. I complete this chapter with a discussion of my assessment of the study's limitations and suggestions for future research directions.

Discussion

Different sources, different views

In this two-phase study, I first chose to look at a variety of documents related to Athabasca University (AU), the Faculty of Health Disciplines (FHD), and the Bachelor of Nursing (BN) program. The documents provided excellent data about institutional, faculty, and program intentions, values, and beliefs. Intentions, values, and beliefs are enacted through stated aims and policies that guide practices. Within the documents I found evidence of open pedagogy aims and intentions that were characterized by stated intentions to increase access to education through principles of relational practice, using of a critical lens, student-centred practices,

valuing the scholarship of teaching and learning (SoTL), and open knowledge practices. I found included aims and intentions of flexibility, open admission practices, prior learning experience recognition, equity, diversity and inclusion policies, and reconciliation policies. Within Phase 1, these aims and intentions were evident through documented institutional, faculty, and program outcomes.

In Phase 2, I interviewed nurse educators who were participants in the system. These interviews provided me with detailed evidence about the practice of open pedagogy within AU's BN program. All educators discussed open pedagogical practices with primary emphasis on practices that demonstrated student-centred and relational practices that harnessed the SoTL. Interviews also facilitated my understanding of how these educators connected their open pedagogical practices to align with institutional, faculty, and program aims and policies.

Additionally, what I came to understand during this study was that while documents provide one perspective, people can hold views that are quite different from what is put forward in the documents. I particularly observed theses differences in how the thematic analyses differed between the two phases of the study. For example, in some cases I found more emphasis on a theme in Phase 1, but less emphasis (or the involvement of a different subtheme) in Phase 2. Utilizing multiple data sources provided varied perspectives related to the research questions and provided a means of triangulating the data, both of which are important principles to social complexity theory (Castellani & Hafferty, 2009).

The space in between

One of the most interesting observations came after comparing how the system operationalizes with how it is nurtured and challenged. By comparing how the system works (operationalized), with how it works better for some people and in some situations (nurtured),

while not working as well or not working at all for some other people and in different situations (challenged), I observed what I call the space in between intent and action. Sometimes there was no gap (space) between intent and action, while in other instances there was a gap that varied on a continuum from small to large. I focused on the space between open pedagogical aims and policies and open pedagogical practices. There was a space in between the intent evident in the documents (specifically the stated intent, aims, and policies related to open pedagogy) and what the educators said about their enacted open pedagogical practices.

Initially I noticed that some themes were prevalent in the analysis of the nurse-educator interviews and not (or less) evident in the document analysis. For example, value and use of open educational resources (OER) was a prominent theme in the nurse-educator interviews; whereas, specific OER value and use was only briefly mentioned in the documents. OER specifically were underrepresented in the document analysis, however open knowledge practices as a theme was prominent in the documents. I was surprised by the lack of data around OER use in the document analysis, and I ran a word frequency search to be sure I had not missed it. I also expected OER to be more prominent, because of the strong ties between OER and open pedagogy in the literature (Baran & AlZoubi, 2020; Croft & Brown, 2020; Wiley, 2014; Wiley & Hilton, 2018). However, the lack of findings of OER aims and intentions is in alignment with general concerns of underwhelming system support for OER in higher education (Doyle et al., 2022; Marin et al., 2022).

The reverse also happened in that some themes were prevalent in the document analysis and less prevalent in the nurse-educator interviews. For example, community impact was a key theme from the document analysis, but mostly absent from the interviews. Community impact in the document analysis was demonstrated through themes of teaching and learning values,

practices, and outcomes that identified moving beyond the person (within the higher educational institution) to potentially impact communities. Moving beyond the institution to the community aligns with open pedagogy being established early on because of OER, with the open pedagogy community advocating for OER to facilitate global access to high quality and free educational resources (Conole & Brown, 2018). Themes in the document analysis explored reciprocity between education, research, and communities, and the expressed belief and value that education for individuals can positively (potentially) affect the communities in which those individuals live. However, relative to this document analysis, community impact in the educator interview data was minor and less explicit. In the interviews, community impact was demonstrated through one less prominent code that flagged BN graduates being positioned to be leaders and change agents in health care. In reflecting on the absence of the theme within practices of open pedagogy, I look back to the literature to understand the evolution of the definition of open pedagogy to being on a continuum of moving from private to more open spaces (Werth & William, 2022). Perhaps this is an example of a continuum whereby the practices and outcomes of the theme of community impact may grow within the system over time.

Nurturing and challenging educator agency

Another key concept that arose from the interviews with nurse educators was around enacting personal agency. Agency was a prominent theme overall when the participants discussed how to nurture open pedagogy. Nurse educator interviews provided several examples of enacting agency to facilitate open pedagogy. Most examples were characterized by the three open pedagogy characteristics: fostering the SoTL, using student-centred practices, and using relational practices. Nurse educators spoke to strong self-reflective practices that enabled them to enact their agency to nurture open pedagogy.

Conversely, when discussing how open pedagogy is challenged, nurse educators spoke to how overall structures in the system (i.e., institutional policies and course design practices) were barriers to their agency. As such, there was a focus on barriers outside of their control (institutional policies and course design) and less focus on self-reflection about enacting personal agency through what might be within their control (such as personal values and practices in tension with open pedagogy).

Educator development

Educator development is a fundamental principle within the SoTL (Cronin & MacLaren, 2018; Kalir, 2018; Veletsianos, 2015). Educator development was a notable theme throughout both phases of the study. Sharing practices was a strategy discussed in the nurse educator interviews (Veletsianos, 2015). For example, there was rich evidence of working within the community of educators to on-board and mentor new educators while creating a community of practice for teaching and learning in the medical-surgical course. The aims and outcomes of the community of practice described also aligned with the aims and outcomes of the community of inquiry (CoI) model aims, which is an important contribution to the digital-distance education field (Cleveland-Innes et al., 2019). Furthermore, as nurse educators participate in such practices together, they experience the value of intersubjective meaning-making within the community. They may then feel comfortable integrating the CoI model into their teaching and learning practices with students in the digital-distance mode.

In exploring educator development, there was both the need to develop educator practices that were both specific to the discipline of nursing and also specific to the modality of practicing in digital-distance education. Specific to the discipline of nursing, an interesting reflection arose in the educator interviews that explored the importance of nursing educators being “in touch”

with what is happening in nursing practice (AT). AT commented on the space between nurse educators being clinically competent and their ability to provide current, relevant, and meaningful educational programming. A nurse educator who is not up to date as a practicing nurse may struggle with being effective as a teacher.

Specific to being digital-distance educators, all educators spoke to recognition of how different the digital-distance mode was from the face-to-face mode. In the literature, most educators transitioning to digital-distance teaching felt underprepared (Porter et al., 2020; Sessions et al., 2022; Shindjabuluka et al., 2022). Nevertheless, in analysis of the interviews, I determined a strong theme of digital-distance educator development through on-boarding with mentoring, continued faculty support, and resource provision. Within the Phase 2 findings, I noted personal reflection on some of the barriers experienced during the initial transition. These included the stigmas and misconceptions about digital-distance learning. Within the analysis I noted stigmas and misconceptions that questioned the quality and rigour of digital-distance education and also misconceptions about OER being merely "chunks of information here and there" (CR). These misconceptions and stigmas were reflected upon and deconstructed by educator development wherein educators gained experience and better understanding of the digital-distance mode. Though no direct relationship was made between learning in community and deconstruction of these misconceptions, mentoring by experienced faculty members was a strategy determined to nurture educator development.

Course design and educator role

Course and resource design and development was a strong theme related to how open pedagogy operationalizes, is nurtured, and is challenged. One challenge to effective teaching and learning related to asynchronous and self-paced courses. Specifically, using an asynchronous and

self-paced course design resulted in challenges to open pedagogy for a variety of reasons as discussed in Chapter 5. For example, there was a central difference between course design for theory versus clinical courses. Most BN courses are theory courses, and they are designed as asynchronous and self-paced. The theoretical advantages of autonomy and flexibility in an asynchronous, self-paced design (Kraglund-Gauthier & Moseley, 2019; Petrovic et al., 2020) was present in the Phase 1 data, but absent in the Phase 2 data. On the other hand, the challenges of increased transactional distance (Cleveland-Innes & Garrison, 2021; Ust, 2021) was a consistent finding in only the Phase 2.

Conversely, clinical courses are designed as paced and blended, which creates a context wherein theoretical learning strategies can harness real-time connections and student-to-student intersubjective meaning-making (Cleveland-Innes & Garrison, 2021; Kalir, 2020; Ust, 2021). Overwhelmingly these advantages were apparent in the Phase 2 analysis wherein participants reported that the design of the clinical courses provided more opportunities for them to enact the principles of open pedagogy. The theoretical disadvantages of a paced and blended course design included less flexibility (Faize & Nawaz, 2020), less equal opportunity for all students to be heard (Petrovic et al., 2020), and increased challenges with technology use (Blackmon, 2018; Kosteniuk & Stewart, 2019; Reyes & Segal, 2019). Technology frustrations were reinforced as a challenge not specific to particular course design, but related to the overall experience of the digital-distance mode.

Open pedagogy was nurtured through student-centred practices that was represented in both the theme of course (and resource) design and development and the theme of enacting nurse-educator agency. However, student-centred practices were mostly identified in course design and educator agency specific to the blended and paced clinical course context. This

finding aligned with the advantage of pacing whereby educators can facilitate paced learning activities that draw from individual students' knowledge to facilitate intersubjective meaning-making as a collective (Cleveland-Innes & Garrison, 2021). In blended models the role of the educator is more central, because the course is more structured compared to self-paced asynchronous courses that are student-led. During a couple of interviews, I observed a challenge for some educators in shifting from teacher-led to student-led approaches as interview participants discussed the different course designs and their role as educators. Teacher-led philosophy was deeply ingrained (in social complexity theory this would be described as "coupled") in the conversations about the challenges of course design for asynchronous and self-paced environments. The themes that arose in these interviews often focused on how asynchronous and self-paced course design did not allow educators to practice a teacher-centric role, which challenged their ability to enact educator agency. This aligned with literature that has supported pacing courses so that content-learning can use collaborative structuring to build meaningful learning from both student and educator knowledge (Cleveland-Innes & Garrison, 2021). The teacher-centric philosophy, and the course design challenges participants experienced, were tightly interwoven and very hard to distinguish from one another. Further exploration of the interconnection of course design challenges and agency challenges is warranted.

Professional body influence

Finally, I expected a stronger influence on the system that would be specific to accreditation and regulation, particularly with the licensing exam change that happened within the last 10 years. Though there was some presence of this in the analysis, mostly the emphasis was on how open pedagogy operates, with only minimal evidence specifically concerned with

how open pedagogy is nurtured or challenged. In the literature there was recognition of the need to balance the flexibility of digital-distance nursing education with high expectations of professional programs such as nursing (Sessions et al. 2022).

Upon reflection, I have considered a couple possible explanations for this. Firstly perhaps external professional regulation is so deeply ingrained into professional nursing practice that I needed to develop interview questions differently to elicit responses reflective of its influence as nurturing or challenging. Secondly I needed to interview participants in nursing education leadership, whose portfolio reflected the work of networking, integrating, and reporting to external regulatory bodies. Thirdly, perhaps this element of accreditation and regulation is simply not as influential as I had presumed, and that this expectation was possibly reflective of my presumptive bias as a member of the nurse-educator population. However, in reviewing the literature to understand the structural organization of the social system within this dissertation, I did expect a stronger influence from it (CCNR, 2018, CRNA-Home page, n.d., CRNA-Regulatory Committees, n.d.). I am left thinking there would be value in undertaking further explorations into the influence of external accreditation.

Summary of discussion

In summary, my findings from this study led me to further understand how structure and agency come into relationship in systems. Phase 1 document data focused on structural elements through document analysis of institutional aims and policies, while Phase 2 nurse-educator interviews demonstrated rich themes of enacting educator agency through open pedagogical practices. Thus, different sources led to different views of open pedagogy. As the researcher I reflected on how there is sometimes a gap (varying in size) between open pedagogical intents and actions. Exploring the space between intents and actions provided key understandings that I

further explore specific to underlying mechanisms and generative causation in the implications section that follows. Furthermore, my analysis of the findings led to my reflections on the importance of educator agency in enacting open pedagogy, noting where and when educators perceive that they have the power to enact it, as well as what encompasses challenges for for nurse educators enacting open pedagogy. I also explored educator development in both discipline and modality-specific pedagogy. Educator development in both discipline and modality-specific pedagogy fulfill the crucial principle of harnessing the SoTL which is a main characteristic of open pedagogy. Within the focus of modality-specific pedagogy which in this case is the digital-distance mode, the intertwining of challenges to educator agency within asynchronous self-paced course designs was a notable coupling that led to challenges to open pedagogy. Finally I explored the weaker than expected influence of the external professional bodies of nursing education, and proposed a possible rationale for this gap between expectations and findings. I now transition to reflecting on the implications of my findings and analyses.

Implications

There were some notable implications from this study that are context- and population-specific.

Evidence-informed, rigorous, and responsive course development

Course and resource development and design is the space in which teaching and learning takes place and where it can be nurtured or challenged. The current BN curriculum is structured with most courses designed as asynchronous and self-paced. This means student autonomy is high, and therefore, effective course design is vital to facilitating students' engagement in digital-distance learning. The following recommendations for course design and development are drawn from the themes arising from the data that focused on creating effective and meaningful learning

experiences through course design. Most prominent was the importance of incorporating evidence-informed teaching and learning practices when writing courses. In alignment with the literature, this includes incorporating the principles of adult learning, which are also crucial to open pedagogy. These principles include choice in learning activities and pathways, student-centred practices, and scaffolding from prior learning and experience (Davidson et al., 2021; Kraglund-Gauthier & Moseley, 2019). Educators also spoke about the importance of program level processes to facilitate rigorous course writing and development through structured teams and practices that harness expertise from content experts and experienced digital-distance educators and learning technologists (Kraglund-Gauthier & Moseley, 2019; Sessions et al., 2022; Shindjabuluka et al., 2022). Quality digital distance courses align with the United Nations Educational, Scientific and Cultural Organization (UNESCO) Sustainable Development Goal 4: Quality Education (SDG4) (Yusof et al., 2022). Finally, specific to the overall course development process was the importance of being responsive in course revisions, so that changes to courses are timely and in reaction to concerns raised or innovations required. Responsive course design exemplifies open pedagogy by ensuring quality and meaningful learning through applications of the principle of the SoTL. Responsive course design also harnesses the principles of student empowerment and cocreation, because it integrates student concerns into changes in courses.

Self-reflective practice

A key finding with direct implications for nurse-educator development focused on self-reflective practice. Engaging in self-reflection is a foundational part of nursing practice that, when employed, facilitates nurse educators developing their teaching and learning practices in the ways I discuss in the following paragraphs.

Firstly, self-reflection facilitates nurse educators to consider the principles of nursing ethics and to scaffold from their knowledge as clinical nurses to their educator practice (Petrovic et al., 2023). Secondly, for nurse educators new to the digital-distance modality, but not new to teaching, self-reflection helps them draw from evidence-informed principles of teaching and learning with which they are familiar, before applying them to their new digital-distance modality. For example, defining what qualifies as student engagement in the face-to-face classroom, deconstructing the principles of engagement from there, and then using those principles to define what would qualify as engagement in the digital-distance educational experience (Porter et al., 2020; Sessions et al., 2022). Finally, as educators transition to the digital-distance education mode, self-reflection provides an important avenue to promote continued efforts to develop, understand, and integrate the evidence-informed digital pedagogy that is characterized by open pedagogy. For example, the following strategies in the literature about digital-distance nursing education align with findings from this study: (a) facilitating reflective thinking about the difference between the face-to-face experience and the digital-distance experience (Porter et al., 2020); and (b) reflecting on the educator's role and how levels of student autonomy may redefine and evolve the educator's role (Porter et al., 2020; Sessions et al., 2022).

The educator interviews revealed strong insights that came from self-reflection regarding how their agency was enacted to nurture open pedagogy. In contrast, areas of challenge to nurse-educator agency focused on structural barriers to their agency (e.g., courses being asynchronous). Fewer themes (e.g., personal values in tension with open pedagogy) demonstrated self-reflection related to how nurse-educator agency was a barrier to practicing open pedagogy. Self-reflection around areas of challenge in educator agency facilitates educators in understanding the principles

and values they may hold that do not align with open pedagogy characteristics. In developing an in-depth understanding of their agency through exploring their personal values and principles, educators can better understand how to enact their agency in ways that are congruent with open pedagogy.

For example, in thinking about the earlier discussion about challenges to student-led practices in asynchronous course design, I suggest that when nurse educators can identify what is within their agency, it would facilitate them making course improvements that are within their control. It is worthwhile to know what can change within the educators' control, if the current reality is mostly self-paced, asynchronous courses? Identifying what is within the nurse educator's agency also helps to detect what is outside their agency (e.g., structural challenges), and this understanding may reduce stress relative to teaching and learning issues that are genuinely outside of their control (Sukhera et al., 2021). Acknowledging what can and cannot be easily changed may result in enhanced mental wellness and leave energy for situations where educators can make change in the system. Furthermore, recognizing insurmountable challenges and structural issues is useful when attempting to mitigate challenges at a structural level, because the root of the problem is clearly determined.

Closing the gap

Next, I looked at the implications of study findings around minimizing the gap between intentions and actions. As a reminder, intention in this study focused on institutional, faculty, and program level aims and policies, while actions were demonstrated through integration of practices and data specific to outcomes of practice. One of the underlying mechanisms that was found in this study to connect intentions to practices was the use of transparent and responsive accountability structures. For example, in the document analysis there were reports of aims,

mission, visions, values, strategic goals, and resulting outcomes at the institutional, faculty, and program levels. Data in Phase 1 showed a connection of practice to intentions through outcomes. The reports of outcomes acted as an accountability structure within the institution. Accountability structures such as these evaluate institutional implementation of intentions also aligns with the UNESCO recommendations in planning for SDG4 (Yusof et a., 2022). Further to this, publicly available reports on outcomes of intentions could advance and facilitate transparent and responsive accountability.

Publicly available reports on outcomes of intentions could also support clear communication and alignment of institutional priorities with educator practices. For example, nurse educators reiterated their awareness and incorporation of some aims and policies into their practices. However, as previously mentioned in the discussion section, there seemed to not always be an awareness and connection of institutional aims and intentions with educator practices. For example, nurse educators emphasized the incorporation of OER into courses as an open pedagogical practice that aligned with institutional aims and policies. Curiously enough OER aims and policies were less notable themes in Phase 1. I observed a disconnect between the presence of OER in aims and policies and the prioritization in actions and practices of the nurse educators. I then reflected on a code from within institutional challenges wherein the nurse educators had communicated a sense of feeling disconnected from institutional leadership. When asked about relational practice with leadership, for instance, CR stated, “I think it's almost impossible to facilitate, everyone is running in opposite directions.” Similar sentiments were shared by other participants, which left me reflecting on the feelings of isolation that are commonly experienced by digital-distance students (Cleveland-Innes & Garrison, 2021; Ust, 2021) and which were also raised in this study. As a result of this reflection, I wonder about the

trickledown (or up) effects of isolation and feelings of disconnect with those in power experienced by the nurse educators.

Using social complexity theory methodology

Using social complexity theory put emphasis on keeping the complex problem within its context. By employing social complexity theory, I gained insights that developed by studying through a systems lens and keeping the problem within its complex state. For example, because of taking a socially complex theory approach, I determined the tight intertwining or coupled practices around teacher-centric roles and challenges in course design. Insight into the coupling of these social practices resulted from employing a complexity lens.

Social complexity theory is useful in exploring the complexity of phenomena while also tracing how social practices (consisting of structure and agency) couple and what happens when they couple. Social complexity theory is a valuable approach in understanding phenomena and in discovering new layers that may give rise to additional questions and insights about the phenomena under study.

Summary of implications

In summary, I noted some key implications in this study that related to the previous discussion section. The first recommendation focused on practicing course and resource design and development that is evidence-informed, rigorous, and responsive to student concerns and the need for innovation. My second recommendation was that nurse educators practice self-reflection to harness both their strengths and areas of growth in their teaching and learning practices. My third recommendation is to use accountability structures to close the gap between intentions and practices while simultaneously considering how frontline educators' feelings of disconnect with leaders can contribute to this gap. Finally, I emphasized the value of using social

complexity theory as an approach to studying socially complex problems. I now share my perceptions of this study's limitations and make recommendations for future studies.

Limitations and Future Study Recommendations

I presented limitations that were outside of my control in Chapter 4. My reflections in this limitations section is on limitations that I observed within the findings and others that I determined only as the study progressed. I then share my recommendations for future studies, which are drawn from the discussion and implications sections above.

Limitations

Like most qualitative methods, generalization has not been a goal of this study, which cannot be interpreted beyond the specific context and population I explored. Moreover, the exploratory lens used in this research does not support transferability; the findings need to be viewed specifically through the lens that I held as an experienced digital-distance nurse educator. The working model developed is sufficient, but this model is limited by the questions that I asked and the sources of data I collected and used. My sample size was sufficient, but limited. I set tight boundaries on this study by choosing one school (AU) and my lens of understanding comes from documents and educators; however, there were other groups that were also involved in digital-distance BN educations and open learning, such as students, leaders, learning designers, and advising staff that did not provide input into this study. Although this facilitated an in-depth study, it could also be considered a limitation.

As shared in the above implications section, new questions arose during analysis that could be explored in follow-up studies. Specific to this study, enacting nurse agency was heavily reliant on data from Phase 2. More opportunity to triangulate Phase 1 and Phase 2 findings in some themes could have strengthened the study. In hindsight, it seems like an obvious

conclusion to recognize that agency interpretation could be limited in a document analysis that explored publicly available, formal documents. Future studies could also include evidence from internal institutional, faculty, and program documents, such as annual reports, educational and program reviews, and accreditation reports. In addition, my exploration of generative causation of the gap between intent and action in the system, course design challenges, and educator agency was also limited.

Future study recommendations

New questions. There is an opportunity for further testing of the model against additional questions to gain further insights into the couplings and generative causation specific to nurse educator agency, course design, and the spaces between intent and action in the system. Questions that arise from this finding include:

- What are the underlying mechanisms that facilitated nurse educators to enact student-centred practices in the synchronous paced environment?
- Which mechanisms created what felt like insurmountable barriers in the asynchronous self-paced courses?
- What agency issues and personal values for nurse educators are in tension with practicing open pedagogy?

Understanding these underlying mechanisms more fully could provide avenues for educators to enact more student-centred practices in asynchronous self-paced learning environments. Another unanswered question that arose looked at the feelings of disconnect between educators and leaders and how disconnect may be an underlying challenge to bringing action to intentions. This observation led me to ask, finally, could better connection between

educators and institutional leadership help close the gap between intentions and practice at both levels?

Open pedagogy in nursing education. To the best of my knowledge, this is the first study to explore open pedagogy within digital-distance undergraduate nursing education. Granted, very few nursing programs offer nursing education by digital distance, so it makes sense the field is small. However, further research is needed to better develop the understanding of open pedagogy in digital-distance undergraduate nursing education. Both open pedagogy and digital-distance education have shown promise in increasing access to nursing education, an important consideration for both higher education and nursing education. Finally open pedagogy aligns with nursing values, so facilitates the transition from nurse to nurse educator.

Discipline-based educational research. Educator development was a prevalent theme in this study, and that theme aligns with open pedagogy's valuing of the SoTL. In this study two key areas were identified in the discussion section specific to (a) developing educators' teaching and learning practice in the digital-distance space, and (b) developing educators' teaching and learning practice relative to the discipline of nursing. This emphasizes the need for discipline-based educational research. Through discipline-based educational research, evidence can be developed that is specific to the uniqueness of the field (e.g., the external regulatory requirements in nursing). Discipline-based educational research also promotes understanding of the uniqueness of the modality of education. These unique realities can relate to the specific learning management system used, the technology employed in digital-distance modes, and to the pedagogical shift to student-led designs in digital-distance education.

Additional populations and comparative systems. Further studies could also look at perspectives of other system participants such as students, leaders, learning designers, and

administrative team members in relation to the same research questions. To better understand how the system of this one institution compares to other systems, future research could also look at comparative institutions to see how their model develops. Comparative models could then be viewed for similarities and differences, and looked at using a wider lens, such as how systems operate at a provincial or national level across the landscape of digital-distance higher education.

Summary of Chapter

I presented a discussion of the research results organized around central general findings from both the overall study and from specific key themes. I then provided implications drawn from that discussion. I completed this chapter with a discussion of the limitations and suggestions for future research directions.

Overall Study Conclusion

In this completed doctoral study, I answered the research question exploring how the digital-distance undergraduate nursing education system in AU operationalizes, nurtures, and challenges open pedagogy.

Study methodology and methods summary

Framed within a critical-realist paradigm, I used further subquestions to explore the concepts of social complexity theory, which I used as the guiding methodology in designing the research. Social complexity theory, as developed by Brian Castellani and Frederic Hafferty (2009), examines social practices within a defined social system. Social complexity theory uses a two phase, stepwise approach, whereby I first explored publicly available institutional documents, and then interviewed nurse educators within AU's BN program. As I worked through the stepwise approach of social complexity theory, I collected and analyzed data within a five-folder framework to explore social practices of the system under study. The five-folder

framework consisted of the field of relations, the web of social practices, the network of attracting clusters, the environment, and the system dynamics. I developed the subquestions of the study in parallel with the social complexity theory framework, which I then used to answer the guiding research question.

Study analysis

Guided by Guest et al.'s (2012) approach, I used applied thematic analysis to explore how open pedagogy is operationalized, nurtured, and challenged. I used the code book from Phase 1 to develop a set of themes, which I then used to create an initial model of the system. As per Castellani and Hafferty's (2009) stepwise approach, I completed a validity check prior to moving to Phase 2. The initial model created from Phase 1 provided a foundation, which I used to refine and build the working model of the system in Phase 2. I collected data from nurse-educator interviews, and analyzed the interviews to evolve the initial model of the system into the final working model of the system.

Methodology and paradigm reflections

Social complexity theory lent itself well, as can be assumed from its name, to studying the complex nature of the phenomena of open pedagogy within the BN program at AU. By examining the contexts, relationships, and elements of system, I acquired a holistic sense of the system within its context. In gaining an understanding of the system, I determined the social practices, their couplings, relationships, the environments and their impacts, and the dynamics of the system. In this way social complexity theory facilitated revealing the links between open pedagogy, undergraduate nursing education, and the digital-distance mode. By using a critical-realist research paradigm, I was able to explore how open pedagogy works well for some, but

does not work well for others. Through this lens, I developed insight into the underlying mechanisms of operating, nurturing and challenging open pedagogy.

Study contributions

Findings from this study contribute to the fields of digital-distance nursing education, the SoTL in higher education, and open pedagogy in digital-distance higher education. The findings support the promise that open pedagogy can further increase access to education through principles of relational practice, uses of a critical lens, student-centred practices, valuing the SoTL, and open knowledge practices. Increasing access to education aligns with the UNESCO SDG4 (Yusof et al., 2022). As with other higher education teachers, nursing educators come with strong practice backgrounds, but often need more formal pedagogical development. The characteristics of open pedagogy align well with nursing practice ethics, which means that educators can draw from what they know as nurses to scaffold to, and then develop, their nurse educator practice with an evidence-informed pedagogical approach. Open pedagogy has the potential to make nursing education more effective, meaningful, and socially just, particularly in the digital-distance environment. Open pedagogy provides a promising possibility for digital-distance nurse educator development.

References

Acevedo, S. M., Aho, M., Cela, E., Chao, J.-C., Garcia-Gonzales, I., MacLeod, A., Moutray, C., & Olague, C. (2015). Positionality as knowledge: From pedagogy to praxis. *Integral Review, 11*(1), 28–46.

Adams, K., & Lanford, M. (2021). Reimagining global partnerships in higher education through open systems theory. *Journal of Comparative and International Higher Education, 13*(5), 108–123. https://eric.ed.gov/?id=EJ1326692

AdvanceHE. (2019). *Essentials framework for enhancing student success: Flexible learning in higher education.* Retrieved June 16, 2023, from https://www.advance-he.ac.uk/sites/default/files/2020-05/Flexible%20Learning%20in%20Higher%20Education%20Framework.pdf

Ahmad, Z., Anderson, J., Bissoondatt, J., Campbell, P., Dhaliwal, T., Dhami, J., Durrant, M., Fowler, A., Gatland, T., Gill, M., Hannaford, E., Hamsvall, H., Harbott, M., Hendry, R., Hillsdon, S., Izatt, M., Khan, A., Marzec, M., McLean, A. . . . Kaminski, J. (2018). Phenomenological analysis of the experience of nursing students' usage of various technologies within a hybrid degree program. *Canadian Journal of Nursing Informatics, 13*(2), 1–38. http://cjni.net/journal/?p=5696

Anderson, T., Annand, D., & Wark, N. (2005). The search for learning community in learner paced distance education: Or, 'Having your cake and eating it, too!'. *Australasian Journal of Educational Technology, 21*(2), 222–224. https://ajet.org.au/index.php/AJET/article/view/1336/706

Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *International Review of Research in Open and Distributed Learning, 12*(3). https://doaj.org/article/260d95e02cf44fc2b1794cd576d3550c

Athabasca University. (2017). *Research integrity policy.* https://www.athabascau.ca/university-secretariat/_documents/policy/research-integrity-policy.pdf

Athabasca University. (2018). *Imagine: Transforming lives, transforming communities. Strategy plan.* https://imagine.athabascau.ca/files/StrategyPlan_2018.pdf

Athabasca University. (2019). *Imagine: Transforming lives, transforming communities.* https://imagine.athabascau.ca/

Athabasca University. (2019). *Message from the dean.* https://www.athabascau.ca/health-disciplines/about/about-our-faculty/message-from-the-dean.html

Athabasca University. (2019). *Faculty mission and vision.* https://www.athabascau.ca/health-disciplines/about/about-our-faculty/vision-mission-goals.html?ss360SearchTerm=FHD%20mission%20and%20vision

Athabasca University. (2021). *Computing and information systems student life*. https://www.athabascau.ca/science-and-technology/about/school-of-computing-and-information-systems-student-life.html

Athabasca University. (2022). *Post-LPN to BN program home page.* https://www.athabascau.ca/health-disciplines/programs/post-lpn-bachelor-of-nursing.html

Athabasca University. (2022). *Post-RN to BN program home page.* https://www.athabascau.ca/health-disciplines/programs/post-rn-bachelor-of-nursing.html

Athabasca University. (2023a). *Flexible and open.* https://www.athabascau.ca/how-au-works/flexible-and-open.html

Athabasca University. (2023b). *Post-LPN BN program paused for new admissions for remainder of 2023*. https://mailchi.mp/athabascau.ca/post-lpn-bn-program-paused-for-new-admissions-for-2023

Austin, G. (2014). Capitalism and the colonies. In L. Neal & J. Williamson (Eds.), *The Cambridge history of capitalism* (pp. 301–347). Cambridge University Press. doi:10.1017/CHO9781139095105.010

Bailey, E., Le Vin, A., Miller, L., Price, K., Sneddon, S., Stapleton, G., & Wolfe, L. (2022). Bridging the transition to a new expertise in the scholarship of teaching and learning through a faculty learning community. *International Journal for Academic Development, 27*(3), 265–278. https://doi.org/10.1080/1360144X.2021.1917415

Bali, M., Cronin, C., & Jhangiani, R. (2020). Framing open educational practices from a social justice perspective. *Journal of Interactive Media in Education* (1), 10. http://doi.org/10.5334/jime.565

Baran, E., & AlZoubi, D. (2020). Affordances, challenges, and impact of open pedagogy: Examining students' voices. *Distance Education, 41*(2), 230–244. https://doi.org/10.1080/01587919.2020.1757409

Barnes, D. M., & Veesart, A. (2019). Transitioning from nurse clinician to nurse education: The future of nursing and healthcare requires more nurse educators. *American Nurse Today* (10), 45.

Bates, T. (2008, July 7). What do you mean by…..? *Online Learning and Distance Education Resources.* https://www.tonybates.ca/2008/07/07/what-is-distance-education/

Bates, T. (2016). *Teaching in a digital age: Guidelines for designing teaching and learning*. Contact North.

Becnel, K., & Moeller, R. A. (2017). Community-embedded learning experiences: Putting the pedagogy of service-learning to work in online courses. *Open Learning, 32*(1), 56–65. http://dx.doi.org/10.1080/02680513.2016.1265443

BeMo. (2023). *2023 Nursing school acceptance rates Canada.* Retrieved June 13, 2023, from https://bemoacademicconsulting.com/blog/nursing-school-acceptance-rates-canada

Benuyenah, V. (2023). Commentary: ChatGPT use in higher education assessment: Prospects and epistemic threats. *Journal of Research in Innovative Teaching & Learning*, *16*(1), 134–135. https://doi.org/10.1108/JRIT-03-2023-097

Blackmon, S. J. (2018). MOOC makers: Professors' experiences with developing and delivering MOOCs. *International Review of Research in Open and Distributed Learning, 19*(4), 76–91.

Blackwood, B., O'Halloran, P., & Porter, S. (2010). On the problems of mixing RCTs with qualitative research: The case of the MRC framework for the evaluation of complex healthcare interventions. *Journal of Research in Nursing, 15*(6), 511–521.

Bonini, S. M., & Matias, C. E. (2021). The impact of Whiteness on the education of nurses. *Journal of Professional Nursing, 37*(3), 620–625. https://doi.org/10.1016/j.profnurs.2021.02.009

Bonk, C., Miyoung, M., Reynolds, T. H., & Reeves, T. C. (2015). Preface to MOOCs and open education special issue: The power of four. *International Journal on E-Learning, 14*(3), 265–277.

Bonk, C., Miyoung, M., Xiaojing, K., Shuya, X., & Feng-Ru, S. (2015). Understanding the self-directed online learning preferences, goals, achievements, and challenges of MIT opencourseware subscribers. *Journal of Educational Technology & Society, 18*(2), 349–368.

Booth, S., & Woollacott, L. C. (2017). On the constitution of SoTL: Its domains and contexts. *Higher Education, 75*(3), 537–551. https://doi.org/10.1007/s10734-017-0156-7

Boyer, E. L. (1990). Scholarship reconsidered: Priorities of the professoriate. *Carnegie Foundation for the Advancement of Teaching*. https://depts.washington.edu/gs630/Spring/Boyer.pdf

Brown, T., & Sorrell, J. (2017). Challenges of novice nurse educator's transition from practice to classroom. *Teaching and Learning in Nursing, 12*(3), 207–211. https://doi.org/10.1016/j.teln.2017.03.002

Brown, T. H. (2015). Exploring new learning paradigms: A reflection on Barber, Donnelly, and Rizvi (2013): "An avalanche is coming: Higher education and the revolution ahead." *International Review of Research in Open and Distributed Learning, 16*(4), 227–234.

Canadian Association of Schools of Nursing (CASN). (2015). *National nursing education framework: Final report.* https://www.casn.ca/wp-content/uploads/2014/12/Framwork-FINAL-SB-Nov-30-20151.pdf

CASN. (2021). *Registered Nurses education in Canada statistics, 2019–2020; Registered Nurse workforce, Canadian production: Potential new supply.* https://www.casn.ca/2021/12/registered-nurses-education-in-canada-statistics-2019-2020/

Canadian Broadcasting Corporations (CBC). (2021). *Canadians eager to be nurses facing tougher entry requirements, fewer training spots.* CBC News. Retrieved June 13, 2023, from https://www.cbc.ca/news/canada/covid-nursing-school-1.6270191

Canadian Council of Registered Nurse Regulators (CCNR). (2018). *Entry-level competencies (ELCs) for the practice of registered nurses - July 24, 2018.* http://www.ccrnr.ca/assets/draft-rn-elc-competencies-july-24-2018_en.pdf

Canadian Nurses Association (CNA). (2020). *Education*. https://www.cna-aiic.ca/en/nursing-practice/the-practice-of-nursing/education

CNA. (2022). *Advocacy Priorities*. https://www.cna-aiic.ca/en/policy-advocacy/advocacy-priorities

Cangelosi, P. R., Crocker, S., & Sorrell, J. M. (2009). Expert to novice: Clinicians learning new roles as clinical nurse educators. *Nursing Education, 30*(6), 367–371. https://journals.lww.com/neponline/Abstract/2009/11000/EXPERTtoNOVICE__Clinicians_Learning_New_Roles_as.7.aspx

Carey, T., Davis, A., Ferreras, S., & Porter, D. (2015). Using open educational practices to support institutional strategic excellence in teaching, learning & scholarship. *Open Praxis, 7*(2), 161–171.

Carter, L., Beattie, B., Caswell, W., Fitzgerald, S., & Nowrouzi, B. (2016). An examination of interprofessional team functioning in a BScN blended learning program: Implications for accessible distance-based nursing education programs. *Canadian Journal of University Continuing Education, 41*(1). https://eric.ed.gov/?id=EJ1087114

Carter, L., Hanna, M., & Warry, W. (2016). Perceptions of the impact of online learning as a distance-based learning model on the professional practices of working nurses in northern Ontario. *Canadian Journal of Learning & Technology, 42*(3), 1. https://doi.org/10.21432/T2Q90M

Castellani, B., & Hafferty, F. (2009). *Sociology and complexity science: A new field of inquiry.* Springer. https://doi.org/10.1007/978-3-540-88462-0

Chiorescu, M. (2017). Exploring open educational resources for college algebra. *International Review of Research in Open and Distributed Learning, 18*(4), 50–59.

Clark, A. (2013a, March 15). *Complexity theory: What is it and how can we use it?* [Video]. YouTube. https://www.youtube.com/watch?v=Q5HCgA0QeMA

Clark, A. (2013b). What are the components of complex interventions in healthcare? Theorizing approaches to parts, powers, and the whole intervention. *Social Science and Medicine, 93*, 185–193. https://doi.org/10.1016/j.socscimed.2012.03.035

Clark, A. (2015, July 17). *Critical realism and realist evaluation: An overview for everyone.* [Video]. Atlas.ti Qualitative Data Analysis. YouTube. https://www.youtube.com/watch?v=8Y3oVV5KxeU

Clark, A., Lissel, S. L., & Davis, C. (2008). Complex critical realism: Tenets and application in nursing research. *Advances in Nursing Science, 31*(4), 67–79. https://doi.org/10.1097/01.ans.0000341421.34457.2a

Cleveland-Innes, M., & Garrison, R. (2021). *An introduction to distance education: Understanding teaching and learning in a new era* (2 ed.). Routledge.

Cleveland-Innes, M., Gauvreau, S., Richardson, G., Mishra, S., & Ostashewski, N. (2019). Technology-enabled learning and the benefits and challenges of using the community of inquiry theoretical framework. *International Journal of E-Learning & Distance Education, 34*(1), 1–18.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Taylor & Francis.

College of Registered Nurses of Alberta (CRNA). (n.d.). *Home Page.* Retrieved August 8, 2023, from https://www.nurses.ab.ca/

CRNA. (n.d.). *Regulatory Committees.* Retrieved August 8, 2023, from https://www.nurses.ab.ca/how-we-operate/governance/committees/regulatory-committees/

CRNA. (2019). *Entry-level competencies for the practice of Registered Nurses.* https://nurses.ab.ca/media/5ndpyfar/entry-level-competencies-for-the-practice-of-registered-nurses-mar-2019.pdf

Conole, G., & Brown, M. (2018). Reflecting on the impact of the open education movement. *Journal of Learning for Development, 5*(3), 187–203.

Cooke, R. M., & Bouché, A.-M. (2017). Team-teaching art appreciation online without a traditional textbook. *Reference Librarian, 58*(4), 238–256. https://doi.org/10.1080/02763877.2017.1352557

Crawford, J., Cowling, M., & Allen, K.-A. (2023). Leadership is needed for ethical ChatGPT: Character, assessment, and learning using artificial intelligence (AI). *Journal of University Teaching & Learning Practice, 20*(3), 1–19. https://doi.org/10.53761/1.20.3.02

Creative Commons. (2022). *Open education*. Retrieved June 12, 2022, from https://creativecommons.org/about/program-areas/education-oer/

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

Critical Realism Network. (2020, May 29). *What is Critical Realism?* [Video]. YouTube. https://www.youtube.com/watch?v=vlBgpq17oSc

Croft, B., & Brown, M. (2020). Inclusive open education: Presumptions, principles, and practices. *Distance Education, 41*(2), 156–170. https://doi.org/10.1080/01587919.2020.1757410

Cronin, C. (2017). Openness and praxis: Exploring the use of open educational practices in higher education. *International Review of Research in Open and Distributed Learning, 18*(5), 15–34.

Cronin, C., & MacLaren, I. (2018). Conceptualising OEP: A review of theoretical and empirical literature in open educational practices. *Open Praxis, 10*(2), 127–143.

Crosslin, M., Benham, B., Dellinger, J., Patterson, A., Semingson, P., Spann, C., Usman, B., & Watkins, H. (2020). *Creating online learning experiences*. Mavs Open Press. http://solr.bccampus.ca:8001/bcc/file/282bf30f-045b-4402-b14c-f4b06df29245/1/Creating-Online-Learning-Experiences-1554846855.pdf

Cypress, B. S. (2017). Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing, 36*(4), 253–263. https://doi.org/10.1097/dcc.0000000000000253

Dalsgaard, C., & Thestrup, K. (2015). Dimensions of openness: Beyond the course as an open format in online education. *International Review of Research in Open and Distributed Learning, 16*(6), 78–97.

Daniel, J., Kanwar, A., & Uvalić-Trumbić, S. (2009). Breaking higher education's iron triangle: Access, cost, and quality. *The Magazine of Higher Learning, 41*(2), 30–35. doi: 10.3200/CHNG.41.2.30-35

Davidson, M. C. J., Malcolm, L., Sturley, L., Crowley, M., MacKinnon, F., & McInally, W. (2021). The future of nurse education? Studying at the Open University in Scotland. *British Journal of Nursing, 30*(7), 428–432. https://doi.org/10.12968/bjon.2021.30.7.428

Davies, D., & Dodd, J. (2002). Qualitative research and the question of rigor. *Qualitative Health Research, 12*(2), 279–289. https://doi.org/10.1177/104973230201200211

Davis, J. N., Sullivan, K., & Guzman, A. (2018). Catalyst for growth: The implications of cocurricular experiences for nursing education. *Journal of Nursing Education, 57*(2), 110–114. http://dx.doi.org/10.3928/01484834-20180123-09

Day, L., & Beard, K. V. (2019). Meaningful inclusion of diverse voices: The case for culturally responsive teaching in nursing education. *Journal of Professional Nursing, 35*(4), 277–281. doi:10.1016/j.profnurs.2019.01.002

DeCarlo, M. (2018). *Scientific inquiry in social work*. Open Social Work Education. https://scientificinquiryinsocialwork.pressbooks.com/

Dewart, G., Corcoran, L., Thirsk, L., & Petrovic, K. (2020). Nursing education in a pandemic: Academic challenges in response to COVID-19. *Nurse Education Today, 92*. https://doi.org/10.1016/j.nedt.2020.104471

Dictionary.com. (2022). *Definition of complexity theory*. https://www.dictionary.com/browse/complexity-theory

Digital Learning Institute. (2023). *What is self paced learning? Definition, benefits and tips.* Retrieved August 7, 2023, from https://www.digitallearninginstitute.com/what-is-self-paced-learning-definition-benefits-and-tips/

Discoverphds. (2020). *Scope and delimitations – explained & example.* https://www.discoverphds.com/blog/scope-and-delimitations

Doyle, E. M., Petrovic, K., Mudry, T., & Anderson, M. (2022). Reflecting on the institutional organization of academic "knowledge" as a barrier to OER construction and adoption in higher education curricula. In C. J. Ivory & A. Pashia (Eds.), *Using open education resources to promote social justice* (pp. 201–217). Association of College and Research Libraries. https://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/9780838936771_OA.pdf

Dunne, B., Pettigrew, J., & Robinson, K. (2016). Using historical documentary methods to explore the history of occupational therapy. *British Journal of Occupational Therapy, 79(*6), 376–384. https://core.ac.uk/download/pdf/323471745.pdf

Dwyer, S., Buckle, J. L. (2009). The space between: On being an insider-outsider in qualitative research. *International Journal of Qualitative Methods, 8*(1), 54–64.

Elderidge, J. M. (2023). *Perceptions of quality among undergraduate students in online courses. A Community of Inquiry framework approach to quality in higher education* [Publication No. 16738, Doctoral dissertation, Virgina Tech]. VTechWorks. http://hdl.handle.net/10919/115223

Elliott, C., & Fabbro, E. (2015). "The Open Library at AU" (Athabasca University): Supporting open access and open educational resources. *Open Praxis, 7*(2), 133–140.

Faculty of Health Disciplines (FHD). (2019). *Bachelor of Nursing*. Retrieved November 14, 2021, from https://fhd.athabascau.ca/programs/undergrad/index.php

FHD. (2021). *Conciliation concepts, terms, and definitions.* Retrieved June 16, 2023, from https://www.athabascau.ca/health-disciplines/about/conciliation-journey/concepts.html

Faculty of Nursing. (2020). *Faculty of nursing: Pursue your PhD with us.* University of Calgary. Retrieved May 12, 2020, from https://nursing.ucalgary.ca/future-students/graduate/doctoral

Faize, F. A., & Nawaz, M. (2020). Evaluation and improvement of students' satisfaction in online learning during COVID-19. *Open Praxis, 12*(4), 495–507. https://doi.org/620310264783188

Garrison, D. R. (2000). Theoretical challenges for distance education in the 21st century: A shift from structural to transactional issues. *International Review of Research in Open and Distance Learning, 1*(1). http://www.irrodl.org/index.php/irrodl/article/view/2

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education, 2*(2–3), 87−105.

Garrison, R., Cleveland-Innes, M., & Vaughan, N. (n.d.). *COI framework.* Retrieved June 15, 2023, from https://coi.athabascau.ca/coi-model/

Gear, C., Eppel, E., & Koziol-McLain, J. (2022). If we can imagine it, we can build it: Developing complexity theory-informed methodologies. *International Journal of Qualitative Methods, 21*. https://doi.org/10.1177/16094069211070936

Global Education Monitoring Report Team. (2006). *Education for all: Literacy for life; EFA global monitoring report, 2006*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000141639

Glouberman, S., & Zimmerman, B. (2002). *Complicated and complex systems: What would successful reform of Medicare look like?* https://www.researchgate.net/profile/Sholom-Glouberman/publication/265240426_Complicated_and_Complex_Systems_What_Would_Successful_Reform_of_Medicare_Look_Like/links/548604670cf268d28f044afd/Complicated-and-Complex-Systems-What-Would-Successful-Reform-of-Medicare-Look-Like.pdf?origin=publication_detail

Government of Canada. (2022). *Towards an accessible Canada.* Retrieved April 18, 2022, from https://www.canada.ca/en/employment-social-development/programs/accessible-canada.html

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis.* Sage.

Guri-Rosenblit, S., & Gros, B. (2011). E-learning: Confusing terminology, research gaps, and inherent challenges. *Journal of Distance Education, 25*(1), 1–12.

Hannan, E., & Liu, S. (2023). AI: New source of competitiveness in higher education. *Competitiveness Review, 33*(2), 265–279. https://doi.org/10.1108/CR-03-2021-004

Harland, T. (2014). Learning about case study methodology to research higher education. *Higher Education Research & Development, 33*(6), 1113–1122.

Harrison, A., & Tronick, E. (2022). Intersubjectivity: Conceptual considerations in meaning-making with a clinical illustration. *Front Psychology, 10*(12). doi: 10.3389/fpsyg.2021.715873

Higgins, J., & Goodall, S. (2021). Transforming the wellbeing focus in education: A document analysis of policy in Aotearoa New Zealand. *International Journal of Qualitative Studies on Health and Well-being,* 16. https://doi.org/10.1080/17482631.2021.1879370

Huggins, S., & Smith, P. (2015). Using an "Open Approach" to create a new, innovative higher education model. *Open Praxis, 7*(2), 153–159.

Ikahihifo, T. K., Spring, K. J., Rosecrans, J., & Watson, J. (2017). Assessing the savings from open educational resources on student academic goals. *International Review of Research in Open and Distributed Learning, 18*(7), 126–140.

Institute for the Scholarship of Teaching and Learning. (n.d.). *What is SoTL?* University of British Columbia. https://isotl.ctlt.ubc.ca/about/sotl/#:~:text=There%20are%20three%20main%20SoTL,of%20different%20methods%20of%20teaching

Jones, A. (2014). Perspectives on change: A study of the multiple dimensions of changing teaching. *Teaching in Higher Education, 19*(2), 170–182. https://doi.org/10.1080/13562517.2013.836088

Kalir, J. H. (2018). Equity-oriented design in open education. *International Journal of Information & Learning Technology, 35*(5), 357–367. https://doi.org/10.1108/IJILT-06-2018-0070

Kalir, J. H. (2020). Social annotation enabling collaboration for open learning. *Distance Education, 41*(2), 245–260. https://doi.org/10.1080/01587919.2020.1757413

Knowles, M. S., Holton, I., Elwood, & Swanson, R.A. (2005). *The adult learner* (6th ed.). Routledge.

Koseoglu, S., & Bozkurt, A. (2018). An exploratory literature review on open educational practices. Distance Education, 39(4), 441–461. https://doi.org/10.1080/01587919.2018.1520042

Kosteniuk, J., & Stewart, N. J. (2019). Communication tools and sources of education and information: A national survey of rural and remote nurses. *Journal of the Medical Library Association, 107*(4), 538–554. https://doi.org/10.5195/jmla.2019.632

Kraglund-Gauthier, W., & Moseley, J. (2019). Building teaching-learning capacities of online nurse educators: Using TPACK to frame pedagogical processes and identify required supports. *Canadian Journal of Learning & Technology, 45*(1), 1. https://doi.org/10.21432/cjlt27595

Last, S. (2019). *Technical writing essentials*. University of Victoria. https://pressbooks.bccampus.ca/technicalwriting/chapter/definingscope/

Lawrence, C. N., & Lester, J. A. (2018). Evaluating the effectiveness of adopting open educational resources in an introductory American government course. *Journal of Political Science Education, 14*(4), 555–566. https://doi.org/10.1080/15512169.2017.1422739

Lee, K. (2018). Implementing computer-mediated intercultural communication in english education: A critical reflection on its pedagogical challenges. *Journal of Computer Assisted Learning, 34*(6), 673–687. https://doi.org/10.1111/jcal.12275

Leedy, P. D., & Ormond, J. E. (2014). *Practical research: Planning and design* (10th ed.). Pearson.

MacDonald, P., & Ahern, T. C. (2015). Exploring the instructional value and worth of a MOOC. *Journal of Educational Computing Research, 52*(4), 496–513. http://dx.doi.org/10.1177/0735633115571927

Mackieson, P., Shlonksky, A., & Conolly, M. (2019). Increasing rigor and reducing bias in qualitative research: A document analysis of parliamentary debates using applied thematic analysis. *Qualitative Social Work*, *18*(6), 965–980. https://doi.org/10.1177/1473325018786996

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Teaching and Learning in Higher Education, 9*(3). https://ojs.aishe.org/index.php/aishe-j/article/view/335

Marín, V. I., Zawacki-Richter, O., Aydin, C. H., Bedenlier, S., Bond, M., Bozkurt, A., Conrad, D., Jung, I., Kondakci, Y., Prinsloo, P., Roberts, J., Veletsianos, G., Xiao, J. . . . Zhang J.. (2022). Faculty perceptions, awareness, and use of open educational resources for teaching and learning in higher education: A cross-comparative analysis. *Research and Practice in Technology Enhanced Learning, 17*(11). https://doi.org/10.1186/s41039-022-00185-z

Martin, S. D., & Dismuke, S. (2018). Investigating differences in teacher practices through a complexity theory lens: The influence of teacher education. *Journal of Teacher Education, 69*(1), 22–39. http://dx.doi.org/10.1177/0022487117702573

Mathany, C., Clow, K. M., & Aspenlieder, E. D. (2017). Exploring the role of the scholarship of teaching and learning in the context of the professional identities of faculty, graduate students, and staff in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning, 8*(3). http://ir.lib.uwo.ca/cjsotl_rcacea/vol8/iss3/10

Maxwell, J. (2012). *A realist approach for qualitative research*. Sage

McGreal, R. (2017). Special report on the role of open educational resources in supporting the sustainable development Goal 4: Quality education challenges and opportunities. *International Review of Research in Open & Distance Learning, 18*(7), 292–305. https://doi.org/10.19173/irrodl.v18i7.3541

Mena Report. (2021a). *Canada: Bell MTS launching innovative wireless home internet service in rural and remote communities across Manitoba.* SyndiGate Media Inc.

Mena Report. (2021b). *Canada: Governments of Canada and Alberta partner to connect rural, remote, and Indigenous communities to high-speed internet.* SyndiGate Media Inc.

Merriam, S. B., Johnson-Bailey, J., Lee, M. Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. International Journal of Lifelong Education, International Journal of Lifelong Education, *20*(5), 405. DOI: 10.1080/02601370120490

Merriam-Webster. (2022a). Accountability. In *Merriam-Webster.com dictionary*. Retrieved April 4, 2022, from https://www.merriam-webster.com/dictionary/accountability

Merriam Webster. (2022b). Crowdsourcing. In *Merriam-Webster.com dictionary*. Retrieved April 4, 2022, from https://www.merriam-webster.com/dictionary/crowdsourcing

Miller, R., & Homol, L. (2016). Building an online curriculum based on OER: The library's role. *Journal of Library & Information Services in Distance Learning, 10*(3–4), 349–359. https://doi.org/10.1080/1533290X.2016.1223957

Moore, M. G. (1989). Three types of interaction. *The American Journal of Distance Education*. AJDE aris.teluq.uquebec.ca/portals/598/t3_moore1989.pdf

Moore, M. G. (2018). *The theory of transactional distance* (4th ed.). Routledge.

Morgan, H. (2022). Conducting a qualitative document analysis. *The Qualitative Report, 27*(1), 64–77. https://doi.org/10.46743/2160-3715/2022.5044

Morse, J. M. (1999). Myth #93: Reliability and validity are not relevant to qualitative inquiry. *Qualitative Health Research, 9*(6), 717–718. https://doi.org/10.1177/104973299129122171

Munich, K. (2014). Social support for online learning: Perspectives of nursing students. *International Journal of E-Learning & Distance Education, 29*(2).

Myrick, F., & Pepin, J. I. (2023). The Current state of Canada's health care system: Implications for nursing education. *Quality Advancement in Nursing Education, 9*(1), 1–3. https://doi.org/10.17483/2368-6669.1396

National Council State Boards of Nursing. (2020). *NCLEX using CAT*. Retrieved February 8, 2020, from https://www.ncsbn.org/356.htm

Nevgi, A., & Löfström, E. (2015). The development of academics' teacher identity: Enhancing reflection and task perception through a university teacher development programme. *Studies in Educational Evaluation, 46*, 53–60. https://doi.org/10.1016/j.stueduc.2015.01.003

Nipa, T. J., & Kermanshachi, S. (2020). Assessment of open educational resources (OER) developed in interactive learning environments. *Education & Information Technologies, 25*(4), 2521–2547. https://doi.org/10.1007/s10639-019-10081-7

Office of the Auditor General of Canada. (2023). *Connectivity in rural and remote areas: Progress on access to high-speed internet and mobile cellular services lags behind for rural and remote communities and First Nations reserves.* Report 2. https://www.oag-bvg.gc.ca/internet/English/att__e_44225.html#rp20

Open Knowledge (n.d.). *Open knowledge for a fair, sustainable, and open future.* Retrieved June 15, 2023, from https://okfn.org/

Otto, F., Kling, N., Schumann, C. A., & Tittmann, C. (2023). A conceptual approach to an AI-based adaptive study support system for individualized higher education. *International Journal of Advanced Corporate Learning, 16(*2), 69–80. https://doi.org/10.3991/ijac.v16i2.35699

Panel of Research Ethics. (2019). *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018).* Government of Canada. https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2018.html

Paulin, D., & Haythornthwaite, C. (2016). Crowdsourcing the curriculum: Redefining e-learning practices through peer-generated approaches. *Information Society, 32*(2), 130–142. https://doi.org/10.1080/01972243.2016.1130501

Pawson, R. (2002). Evidence and policy and naming and shaming. *Policy Studies, 23*(3–4), 211–230. https://doi.org/10.1080/0144287022000045993

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review – A new method of systematic review designed for complex policy interventions. *Journal of Health Services Research & Policy, 10*, Suppl. 1, 21–34. https://doi.org/10.1258/1355819054308530

Petrovic, K., Doyle, E., Lane, A., & Corcoran, L. (2019). The work of preparing Canadian nurses for a licensure exam originating from the USA: A nurse educator's journey into the institutional organization of the NCLEX-RN. *International Journal of Nursing Education Scholarship, 16*(1). https://doi.org/10.1016/S2155-8256(17)30160-6

Petrovic, K. A., Hack, R., & Perry, B. (2020). Establishing meaningful learning in online nursing postconferences: A literature review. *Nurse Educator, 45*(5), 283–287.

Petrovic, K., Perry, B., Walsh, P. (2023). Aligning nursing ethics with critical and open pedagogy in nursing education: A literature review. *Nurse Educator, 48*(1), E1-5. doi: 10.1097/NNE.000000000000125

Porter, J. E., Barbagallo, M. S., Peck, B., Allen, L., Tanti, E., & Churchill, A. (2020). The academic experiences of transitioning to blended online and digital nursing curriculum. *Nurse Education Today, 87*. https://doi.org/10.1016/j.nedt.2020.104361

Reyes, M., & Segal, E. A. (2019). Globalization or colonization in online education: Opportunity or oppression? *Journal of Teaching in Social Work, 39*(4–5), 374–386. http://dx.doi.org/10.1080/08841233.2019.1637991

Reynolds, B. (2021). The impact of affordability: Featured, learning design. TEL Education. https://www.tel-education.org/the-impact-of-affordability/

Sah, L. K., Singh, D. R., & Sah, R. K. (2020). Conducting qualitative interviews using virtual communication tools amid COVID-19 pandemic: A learning opportunity for future research. *Journal of Nepal Medical Association, 58*(232), 1103–1106. https://doi.org/10.31729/jnma.5738

Salyers, V., Carter, L., Carter, A., Myers, S., & Barrett, P. (2014). The search for meaningful e-learning at Canadian universities: A multiinstitutional research study. *International Review of Research in Open & Distance Learning, 15*(6), 313–337.

Scientific and Cultural Organization (UNESCO). (2021). *Open Educational Resources*. Retrieved June 12, 2022, from https://en.unesco.org/themes/ict-education/oer

Sebele-Mpofu, F. Y. (2020). Saturation controversy in qualitative research: Complexities and underlying assumptions. A literature review. *Cogent Social Sciences*, *6*(1), 1838706. https://doi.org/10.1080/23311886.2020.1838706

Sessions, L. C., Ness, M., & Mark, H. (2022). Exploring the experiences of nursing faculty during the coronavirus (COVID-19) pandemic—A qualitative descriptive study. *Teaching and Learning in Nursing*, *17*(4), 477–481. https://doi.org/10.1016/j.teln.2022.05.010

Shindjabuluka, R. N., Ashipala, D. O., & Likando, G. N. (2022). COVID-19 as an enabler for enhancing online learning and teaching skills for nurse educators at the University of Namibia: Prospects and challenges. *Health SA Gesondheid, 27*(13). https://doi.org/10.4102/hsag.v27i0.1727

Sibanda, L. & Iwu, C. G. (2021). The academic journey of entrepreneurship students in higher education institutions: The systems theory approach. *Education: Modern Discourses*, (4), 135–145. https://doi.org/10.37472/2617-3107-2021-4-13

Silver, C. A., Tatler, B. W., Chakravarthi, R., & Timmermans, B. (2021). Social Agency as a continuum. *Psychonomic Bulletin & Review, 28*(2), 434–453. https://doi.org/10.3758/s13423-020-01845-1 Smith, K., Jeffery, D., & Collins, K. (2018). Slowing things down: Taming time in the neoliberal university using social work distance education. *Social Work Education, 37*(6), 691–704. https://doi.org/10.1080/02615479.2018.1445216

Snow, K. (2016). Social justice or status quo? Blended learning in a western Canadian teacher education program. *Canadian Journal of Learning & Technology, 42*(3), 1–17. https://doi.org/10.21432/T23K8T

Solin, P. (2021). Self-paced, instructor-assisted approach to teaching linear algebra. *Mathematics in Computer Science, 15*(4), 661–687. https://doi.org/10.1007/s11786-021-00499-z

Sormunen, M., Saaranen, T., Heikkilä, A., Sjögren, T., Koskinen, C., Mikkonen, K., Kääriäinen, M., Koivula, M., & Salminen, L. (2020). Digital learning interventions in higher education: A scoping review. *Computers, Informatics, Nursing, 38*(12), 613–624. https://doi.org/10.1097/CIN.0000000000000645

Stommel, J., & Burtris, M. (2019, June 4). *What is critical digital pedagogy, and why does higher ed need it?* [Video]. EdSurge News. https://www.edsurge.com/news/2019-06-04-what-is-critical-digital-pedagogy-and-why-does-higher-ed-need-it

Sukhera, J., Kulkarni, C. & Taylor, T. (2021). Structural distress: Experiences of moral distress related to structural stigma during the COVID-19 pandemic. *Perspective Medical Education 10*, 222–229. https://doi.org/10.1007/s40037-021-00663-y

Systems Innovation. (2019). *Complexity theory*. https://systemsinnovation.io/complexity-systems-theory/

Szekely, E., & Mason, M. (2019). Complexity theory, the capability approach, and the sustainability of development initiatives in education. *Journal of Education Policy, 34*(5), 669–690.

The Daily. (2019). *Results from the 2016 census: Occupations with older workers.* Statistics Canada. https://www150.statcan.gc.ca/n1/daily-quotidien/190725/dq190725b-eng.htm

The Teaching Excellence in Adult Literacy (TEAL) Center. (2010). *TEAL center fact sheet No. 6: Student-centered learning.* Retrieved June 16, 2023, from https://lincs.ed.gov/sites/default/files/6%20_TEAL_Student-Centered.pdf

Thompson, K., Corrin, L., GHwang, G-J., & Lodge, J. M. (2021). Trends in education technology in higher education. *Australasian Journal of Educational Technology, 37*(3), 1–4. https://doi.org/10.14742/ajet.7396

Tierney, A. (2020). The scholarship of teaching and learning and pedagogic research within the disciplines: Should it be included in the research excellence framework? *Studies in Higher Education, 45*(1), 176–186. https://doi.org/10.1080/03075079.2019.1574732

Tietjen, P., & Asino, T. I. (2021). What is open pedagogy? Identifying commonalities. *International Review of Research in Open & Distance Learning, 22*(2), 185–204.

Tilak, S., & Glassman, M. (2020). Alternative lifeworlds on the internet: Habermas and democratic distance education. *Distance Education, 41*(3), 326–344. https://doi.org/10.1080/01587919.2020.1763782

Universities Canada. (2017, October 26). Universities Canada principles on equity, diversity, and inclusion. https://www.univcan.ca/media-room/media-releases/universities-canada-principles-equity-diversity-inclusion/

University of Alberta. (2020). *Nursing: Why study this program.* Retrieved May 15, 2020, from https://www.ualberta.ca/graduate-programs/nursing.html

Ust, S. (2021). Emergency remote teaching in interior architecture: A necessary shift. In K. Enomoto, R. Warner, & C. Nygaard (Eds.), *Teaching and learning innovations in higher education* (pp. 109–128). Libri.

Valderama-Wallace, C. P. (2017). Critical discourse analysis of social justice in nursing's foundational documents. *Public Health Nursing, 34*(4), 363–369. http://dx.doi.org/10.1111/phn.12327

Valderama-Wallace, C. P., & Apesoa-Varano, E.C. (2019). “Social justice is a dream”: Tensions and contradictions in nursing education. *Public Health Nursing, 36*(5), 735–743. http://dx.doi.org/10.1111/phn.12630

Veletsianos, G. (2015). A case study of scholars' open and sharing practices. *Open Praxis, 7*(3), 199–209.

Verkuyl, M., Lapum, J., St-Amant, O., Tan, A., & Garcia, W. (2018). Engaging nursing students in the production of open educational resources. *Nurse Education Today, 71*, 75–77. http://dx.doi.org/10.1016/j.nedt.2018.09.012

Visser, R., & Flynn, A. B. (2018). What are students' learning and experiences in an online learning tool designed for cognitive and metacognitive skill development? *Collected Essays on Learning and Teaching, 11*.

Waldrop, M. M. (2020). *Complexity: The emerging science at the edge of order and chaos* (2nd ed.). [Audio book]. Audible Studios.

Walker, G. (2014). *Using complexity theory to understand the teaching and learning process* [Master’s thesis, University of Western Sydney]. ProQuest Dissertations & Theses Global. 1030870.

Wang, H., Huang, T., Zhao, Y., Yue, Y. P., Gao, Y., & Gao, J. (2021). Self-regulation-oriented analysis of online learning behavior and influencing factors. *2021 International Symposium on Educational Technology (ISET)* [Conference Paper]. 129–133.

Webb, A. S., & Tierney, A. M. (2020). Investigating support for scholarship of teaching and learning; We need SoTL educational leaders. *Innovations in Education & Teaching International, 57*(5), 613–624. https://doi.org/10.1080/14703297.2019.1635905

Werth, E., & Williams, K. (2022). The why of open pedagogy: A value-first conceptualization for enhancing instructor praxis. *Smart Learning Environments, 9*(1), 1–22. https://doi.org/10.1186/s40561-022-00191-0

West, R. E. (2019). Developing an open textbook for learning and instructional design technology. *TechTrends: Linking Research & Practice to Improve Learning, 63*(2), 226–235. https://doi.org/10.1007/s11528-018-0263-z

Wiley, D. (2014, March 5). The access compromise and the 5th R. *Improving Learning.* https://opencontent.org/blog/archives/3221

Wiley, D., & Hilton, J. (2018). Defining OER-enabled pedagogy. *International Review of Research in Open and Distributed Learning*, *19*(4), 133–147. https://doi.org/10.19173/irrodl.v19i4.3601

Wilkinson, L. A. (2011). Systems theory. In N. J. A. Goldstein (Ed.), *Encyclopedia of Child Behavior and Development*. SpringerLink. https://doi.org/10.1007/978-0-387-79061-9_941

Woo, K. (2018). *Polit & Beck, Canadian essentials of nursing research* (4th ed.). Lippincott, Williams, & Wilkins.

World Health Organization, W. (2018). *Ageing and health*. Retrieved April 25, 2021, from https://www.who.int/news-room/fact-sheets/detail/ageing-and-health

Yusof, M. S. B., Martin, M., Furiv, U., Kamarudin, S., & Ann, T. S. (Eds.). (2022). *SDG-4: Planning for flexible learning pathways in higher education.* UNESCO International Policy Forum 2021. Commonwealth Tertiary Education Facility. https://www.dropbox.com/s/izdv7j1jnsz9rze/SDG4%20Planning%20for%20flexible%20learning%20pathways%20in%20higher%20education%20(softcopy).pdf?dl=0

Zanchetta, M. S., Bailey, A., & Kolisnyk, O. (2017). Mentors' and mentees' intellectual-partnership through the lens of the transformative learning theory. *Nurse Educator Practice,* 25, 111–120. doi:10.1016/j.nepr.2017.05.009

Appendix A: Aligning Nursing Ethics with Critical and Open Pedagogy in Nursing Education: A Literature Review

Nurse Educator

OPEN

Aligning Nursing Ethics With Critical and Open Pedagogy in Nursing Education

A Literature Review

Kristin Petrovic, MN, RN; Beth Perry, PhD, RN; and Pamela Walsh, EdD

ABSTRACT

Background: There is a need to increase access to nursing education that is meaningful and socially just.

Purpose: To investigate the alignment of critical and open pedagogy in nursing education with nursing principles of ethics.

Method: Narrative thematic synthesis literature review of Canadian and American sources related to nursing education. Results: Thematic analysis of 29 full-text sources that align nursing ethical principles with critical and open pedagogy in nursing education.

Conclusion: Critical and open pedagogy aligns with nursing practice ethics and facilitates meaningful and socially just nursing education experiences.

Keywords: baccalaureate nursing education, learning, nursing ethics, pedagogies, sociocultural barriers

Cite this article as: Petrovic, K., Perry, B., Walsh, P. (2023). Aligning nursing ethics with critical and open pedagogy in nursing education: A literature review. Nurse Educator, 48(1), E1-5. doi: 10.1097/NNE.0000000000000125

Nursing practice is guided by nursing ethics, which influences educator practice. Nursing ethical principles align with critical and open pedagogy. Critical pedagogy with its social justice (SJ) lens can address sociocultural barriers (SCBs) by revealing structures and practices that disadvantage students.[1] Open pedagogy increases educational accessibility through student-centered and power-balanced practices.

Critical and open pedagogy removes SCBs in higher education (HE).[2,3] This literature review aligns and connects the Canada and US nursing codes of ethics with critical and open pedagogy in nursing education.

Author Affiliations: Academic Coordinator (Ms Petrovic) and Professor (Dr Perry), Faculty of Health Disciplines, and Associate Professor, Distance Education (Dr Walsh), Faculty of Humanities and Social Sciences, Athabasca University, Athabasca, Alberta, Canada.
Hewlett Foundation and Cerritos College Foundation (Open Education Group) funded Open Access Publication Fees as part of Kristin Petrovic's Open Education Fellowship. Kristin will also receive a US $1000 honorarium upon project completion.
The first author acknowledges her supervisors, Drs Beth Perry and Pamela Walsh, and committee members, Dr Cindy Ives and Dr Mohamed Ally, for their support, feedback, and guidance in this literature review article
The authors declare no conflicts of interest.

Correspondence: Ms Petrovic, Faculty of Health Disciplines, Athabasca University, 1 University Dr, Athabasca, AB T9S 3A3, Canada (kpetrovic@ athabascau.ca).
Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's website (www. nurseeducatoronline.com).
Accepted for publication: May 28, 2022
Early Access: July 25, 2022
DOI: doi: 10.1097/NNE.0000000000001253

Background

Increased access to nursing education is urgently needed to mitigate the nursing shortage[4] and to facilitate responsive professional development to prepare nurses to respond to societal health care needs.[5] Nursing education has met access challenges with various strategies including moving to distance education. Distance education reduces barriers such as geographical divides and facilitates the balance of personal and professional commitments[6]; however, SCBs continue to disadvantage some students.[7]

SCBs in HE consist of relational power dynamics and inequitable practices[7] that unduly affect diverse students.[8,9] As a result, the Canadian and US nursing workforce is disproportionately heteronormative white able-bodied women.[10-13] This is problematic not only from an SJ perspective but also from a health perspective, as workforce diversification results in professionals who are positioned to decrease health inequities within diverse populations.[14,15]

Critical and Open Pedagogy

Critical pedagogy supports equitable practices in education by moving from a passive model to one of engaged and critical practices whereby educators and students collaborate to expose oppressive structures and practices.[1] Open pedagogy, which originated in distance education, empowers students through critical,

student centered practices and prioritizes relationships between students, between educators, and between students and educators.[16,17] Finally, open pedagogy removes barriers to knowledge development and distribution with the open educational resource (OER) movement.[17]

Nursing Ethical Frameworks

Experienced nurses often become nurse educators because they are knowledgeable and skilled practitioners.[18] Nursing ethics underlay educator practice. The ethical principles of dignity, patient autonomy, patient-centered approach, health promotion, accountability, competence, SJ, equity, and safety are found in both the Canadian and US RN codes of ethics.[19,20] These principles align with many characteristics found in critical and open pedagogy (see Supplemental Digital Content, Figure 1, available at: http://links.lww.com/ NE/B150).

Methods

A narrative thematic synthesis review of Canadian and US nursing education literature focusing on critical and open pedagogy characteristics was conducted. Examples of critical and open pedagogy were analyzed using a nursing ethical framework.

Search Strategy

Both nursing-specific and interdisciplinary databases including Proquest Nursing & Allied Health Source, Science Direct, CINAHL Plus with Full-text, Journals@ Ovid Full-text, and ABI/Inform Complete databases were searched. Terms were set to match specific database synonyms. Sources were not limited to primary research as several conceptual articles and literature reviews provided rich conceptual discussions.

Inclusion and Exclusion Criteria

Inclusion criteria were English translation; published from January 1, 2015, to August 1, 2021 (to address current literature); and focused on Canada or US RN education, nursing values or ethics, and characteristics of critical and open pedagogy.

Screening Process

Literature screening included 3 phases: title, abstract, and full-text of the article. First, all titles were reviewed by the first author and rejections were confirmed with an abstract review. The second phase included independent abstract review by 2 authors. Any questionable abstracts were moved forward. Third, all fulltext screens were completed by the first author, with a second author screen if questionable. This process resulted in 29 full-text sources for thematic analysis. Supplemental Digital Content, Figure 2 (available at: http://links.lww.com/NE/B151) details the literature screening process.

Analysis

The first author reviewed all full-text articles line by line, and every fifth article was independently coded by the second or third author for agreement, congruency, and as bias control. There were 19 US sources, 9 Canadian sources, and 1 source had both US and Canadian perspectives. There were 12 qualitative, 2 mixed-methods, 1 literature review, and 14 conceptual

articles. NVivo 12 (QSR International, Burlington, Massachusetts) software was used to code the literature review following a similar narrative thematic synthesis literature review process by other authors.[21] Initially, general themes were developed inductively and then reviewed and revised to establish the contemporary state of the literature. The themes were then reflected upon to see how they translated to the ethical principle's framework. Thus, theme development moved from descriptive to analytical whereby "the reviewers 'go beyond' the primary studies and generate new interpretive constructs, explanations or hypotheses"[22(p1)] (see Supplemental Digital Content, Table, available at: http://links.lww.com/NE/B152, for source characteristics).

Findings

The discussion is framed by critical and open pedagogy analytical themes identified within the common nursing ethical principles of both codes (see Supplemental Digital Content, Figure 1, available at: http://links.lww.com/ NE/B150). Using ethics that are foundational to principles of practice allows nurse educators to consider pedagogical practices from a place of *knowing.* Discussion is ordered in how each principle flowed from one to the next; order is not based on frequency of codes assigned.

Ethics and Educator Practice

In accordance with inclusion criteria, all sources connected ethical principles to critical and open pedagogical strategies. Strategies were exemplified through program ideals, curricular choices, and educator classroom practice.[8,10,16,23-29] Sixteen sources explicitly referenced connecting nursing education pedagogical strategies and nursing ethical principles. Furthermore, sources revealed that as RNs move to the role of educator, they can model foundational nursing ethics for students through their teaching practice.8,23,25,30,31

Principle of Dignity

Dignity is recognizing individual worth[19] and is central to the principle of relational practice found in critical and open pedagogy. Examples of relational practice integration included peer-to-peer collaborative practices[15,23,30,32] such as through service-learning opportunities involving partnering of nursing students from host and visiting countries,[32] formal peer editing,[23] resource sharing among classmates,[15,23] and informal networking of students using social platforms.[15] These opportunities emphasized equality of voices and the importance of individual contributions to achieving team goals.[23,30,32]

The student-educator relationship was also explored, with a noted shift from teacher-centric to student centered pedagogy.[29,30] Student-centered pedagogy includes partnerships where the teacher becomes a facilitator or mentor and the student moves from knowledge consumer[33] to knowledge coproducer.[29,30,34-36] This was exemplified through strategies such as open research initiatives with undergraduate students[29] or OER textbook development with student partners.[36] Moving to a more collaborative and less hierarchical relationship results in power redistribution between educators and students.8,23,29,30,36

Principle of Patient Autonomy/Student Autonomy

Collaborative student-educator relationships result in increased student voice and choice regarding assessment practices, expectations, learning outcomes, and learning resources.[23,29,30,36,37] These collaborations also remove traditional gatekeeping practices in HE[8,29,31] such as the need for a high grade point average to qualify for undergraduate research opportunities giving all interested students a chance to be researchers.[29] Such initiatives enable students to embrace their role as knowledge producers. Student-educator collaborations provide educators with transformative learning as they reflect on their critical pedagogy practices and about how students perceive the knowledge production process.[23,29,30,36] Student autonomy happens through a student-centered approach in critical and open pedagogy.

Principle of Patient-Centered Approach/ Student-Centered Approach

Centering the student in educational experiences was prevalent in discussions of critical and open pedagogy.[10,23,29,36,38] Student-centeredness was described as the educator focusing attention on seeing what is best *in* students and then working with students to develop paths for success.[23,29] Student-centered educators use relational practice to facilitate deep and meaningful learning where students feel safe to scaffold nursing knowledge onto their ways of knowing,[10,29,30] empowering them to celebrate their uniquity.[30] Students may also experience increased socialization to the profession when in collaborative relationships with educators,[15,36,39] increased confidence acquired through classroom interactions, and the enhanced likelihood of becoming advocates in their professional roles.[23,34]

Principle of Health Promotion/Education Promotion

Promotion focuses on facilitating and advocating for optimal levels of education. Nurse educators optimize learning through transformative teaching and learning strategies categorized as critical inquiry activities such as thinking about nursing at a system rather than at a surface level, focusing on topics such as health determinants, challenging dominant narratives, and thinking about nursing from culturally relevant framing.10,15,23,28,30,35,40,41 Reflective practice was recommended to develop a deeper connection between nursing practice and personal and professional assumptions and biases, resulting in change and growth at an attitudinal level.[2]

Principles of Accountability and Competence

Educators are accountable for developing competence in the Scholarship of Teaching and Learning (SoTL).[42] Educators require pedagogical professional development specific to equity-oriented approaches such as universal design principles to increase inclusive and meaningful student experiences.[23,43,44] Challenges remain despite the call for increased valuing and practicing of transformative pedagogy. There was a noted continued lack of theoretical application of critical and open pedagogy in nursing education, despite recognition that these are successful evidence-informed pedagogies.[23,29,43,45] Limited application of critical and open pedagogy by educators is related to limited pedagogical knowledge, lack of time to apply the pedagogy, and absence of supportive institutional policies.[13,43,45]

[2] *References* 8, 10, 13, 23, 34, 35, 38, 40, 41.

Principles of SJ, Equity, and Safety

The ethical principles of SJ, equity, and safety closely align with critical and open pedagogy whereby nurse educators "uphold principles of justice by safeguarding human rights, equity and fairness and by promoting the public good."[19(p4)] Authors called for nursing education to overcome racism and exclusionary practices to promote SJ.[3] A predominantly heteronormative white able-bodied female representation in nursing and nursing education can create an unsafe learning context and working environment for diverse students.[8,10,11,13,27,31,45] Racism is exhibited in many ways including educators perpetuation and reliance on westernized colonial frames of reference[10,45] and implicitly and explicitly enacting westernized superiority values.[13,26,32] The challenges of understanding and addressing racism and exclusionary practices result in nurse educators being uncomfortable with race-related discourse.8,10,27,30,31,47

Nursing educators need to practice with an SJ lens[13,23,24,26,27,38] through the integration of principles of equity, diversity, and inclusion (EDI).14,15,27,32,39,41,45,47 EDI strategies include the use of holistic admission processes[10,14,15] and recruitment and retainment of minority students facilitated by intentional opportunity for interaction with diverse faculty and students.[13,31,39,45] Additional strategies include social, financial, and academic programs to support students who may face challenges with academic writing (particularly if English is not a first language), science, and mathematics.[10,15,45]

Advocacy is commonly aligned with the profession of nursing and facilitated by SJ practices.[13,23,28,47] However, although the nursing profession readily ascribes to advocacy practices, tension exists regarding what types of activism are appropriate for nurses.[27,28] Nurses need to move beyond advocacy to activism. For students to gain advocacy and activism skills, these must be in the curriculum.[28,29,31,47] Learning activities that teach about the role of advocacy and activism include critical discourse on current events, writing letters to the local newspaper editors about issues, and attendance at political rallies.[28]

When nurse educators model SJ practices, students learn to use their voices as advocates and activists.[23,28-30] After graduation, students become RNs who critically examine power in interprofessional relationships (such as between differently credentialed nurses) to improve relational practices, ultimately benefiting the health system.[48] In summary, educators listening to the voices of nursing students through safe, inclusive, and SJ practices can potentially increase workforce diversity and improved health outcomes.14,15,30,34,39,45,47

Discussion of Practice Implications

Characteristics of critical and open pedagogy align with nursing ethics and are described in nurse educator practices. Moving to intentional and consistent integration of these pedagogies could facilitate the continued evolution of nursing education. Through critical and open pedagogy, nurse educators and students can highlight, dismantle, and change HE to remove SCBs and create learning environments that motivate graduates to carry forward ethical principles to their

[3] *References* 10, 13, 23, 24, 26, 27, 30, 38, 41, 46.

practice. The following are suggestions for nurse educators that have emerged from the literature.

Commit to the SoTL

Enacting critical and open pedagogy starts with recognizing that educators can be more effective if they develop their SoTL. Educator practice is a unique science and art that needs more attention across HE, and this starts with institutional recognition of the value of the SoTL.[42] Most nursing undergraduate and graduate programs require that applicants for faculty positions have a graduate degree qualification (doctoral degree preferred). To facilitate enough qualified nurse educators, more graduate programs are needed to prepare candidates for these roles. Ongoing professional development focused on the SoTL should be required.[16]

Understand Assumptions and Practices

Canada and the US have a concerning colonial past resulting in continued injustices perpetuated by class, race, gender, and religious bias that permeate all systems, including nursing education.[10,13,27,31,41] To begin, nurse educators need to reflect deeply on their participation in practices and systems that perpetuate SCBs. It is imperative to understand how inherent privilege underlies traditional beliefs and assumptions about society, the nursing profession, and HE. This reflection also includes accepting the discomfort that comes with acknowledging racism and exclusion in nursing education.[8,10] Neither health care nor HE can fix what is broken if it is not acknowledged to be broken.

Commit to Critical and Open Pedagogical Teaching and Learning

Critical and open pedagogy helps educators to pursue a more equitable society, profession, and HE experience. To achieve pedagogy that is critical and open, educators need to continually reflect on how to pursue awareness, understanding, and action in HE. Educators need to consider which approaches facilitate equitable and student-centered practices that are open and share power, knowledge, and resources. Many of the critical and open practices from the Findings section can be enacted to potentially decrease SCBs and facilitate the evolution of nursing education.

Gaps in the Research

Further research is needed to understand the connection between ethical practices that link the RN practice role to the RN educator role. The focus on critical pedagogy in nursing education is growing, but more research is needed. Open pedagogy stemming from distance education shows promise in HE, but more research is needed specifically in distance nursing education. Although evidence of critical and open pedagogical practices was found, explicit integration of critical and open pedagogy in nursing education is underexplored.

Conclusion

There is a need for research into critical and open pedagogy in nursing education. When integrated, critical and open pedagogy has the potential to improve the HE experience from classroom to institutional level while shaping nursing into a more SJ profession.

References

1. Fovet F. Educational Recovery for PK-12 Education During and After a Pandemic. IGI Global; 2021.
2. Baran E, AlZoubi D. Affordances, challenges, and impact of open pedagogy: examining students' voices. Distance Educ. 2020;41(2):230–244. doi:10.1080/01587919.2020.1757409
3. Tietjen P, Asino TI. What is open pedagogy? Identifying commonalities. IRRODL. 2021;22(2):185–204. doi:10.19173/irrodl.v22i2.5161
4. International Council of Nurses (ICN). International Council of Nurses Policy Brief. The Global Nursing Shortage and Nurse Retention. ICN; 2020.
5. Canadian Nurses Association. Framework for the Practice of Registered Nurses in Canada. 2nd ed. Canadian Nurses Association; 2015. Accessed March 15, 2021. www.cna-aiic.ca/~/media/cna/page-content/pdf-en/framework-for-the-pracic...
6. Carter L, Beattie B, Caswell W, et al. An examination of interprofessional team functioning in a BScN blended learning program: implications for accessible distance-based nursing education programs. Can J Univ Contin Educ. 2016;41(1). doi:10.21225/D5QW3Q
7. Bali M, Cronin C, Jhangiani R. Framing open educational practices from a social justice perspective. J Interactive Media Educ. 2020(1):10. doi:10.5334/jime.565
8. Davis JN, Sullivan K, Guzman A. Catalyst for growth: the implications of co-curricular experiences for nursing education. J Nursing Educ. 2018;57(2):110–114. doi:10.3928/01484834-20180123-09
9. Valderama-Wallace CP. Critical discourse analysis of social justice in nursing's foundational documents. Public Health Nurs. 2017;34(4):363–369. doi:10.1111/phn.12327
10. Bonini SM, Matias CE. The impact of whiteness on the education of nurses. J Prof Nurs. 2021;37(3):620–625. doi:10.1016/j.profnurs.2021.02.009
11. Epstein I, Stephens L, Severino SM, et al. “Ask me what I need”: a call for shifting responsibility upwards and creating inclusive learning environments in clinical placement. Nurse Educ Today. 2020;92:104505. doi:10.1016/j.nedt.2020.104505
12. Jefferies K, Tamlyn D, Aston M, et al. Promoting visible minority diversity in Canadian nursing. Can J Nurs Res. 2019;51(1):3–5. doi:10.1177_0844562118795812
13. Waite R, Nardi D. Nursing colonialism in America: implications for nursing leadership. J Prof Nurs. 2019;35(1):18–25. doi:10.1016/j.profnurs.2017.12.013
14. Jung I, Lee J. A cross-cultural approach to the adoption of open educational resources in higher education. Br J Educ Technol. 2020;51(1):263–280. doi:10.1111/bjet.12820
15. Noone J, Najjar R, Quintana AD, et al. Nursing workforce diversity: promising educational practices. J Prof Nurs. 2020;36(5):386–394. doi:10.1016/j.profnurs.2020.02.011
16. Carey T, Davis A, Ferreras S, et al. Using open educational practices to support institutional strategic excellence in teaching, learning & scholarship. Open Praxis. 2015;7(2):161–171.

17. Conole G, Brown M. Reflecting on the impact of the open education movement. J Learn Dev. 2018;5(3):187–203.
18. Brown TH. Exploring new learning paradigms a reflection on Barber, Donnelly, and Rizvi (2013): "An avalanche is coming: higher education and the revolution ahead." IRRODL. 2015;16(4):227–234.
19. Canadian Nurses Association. Code of Ethics for Registered Nurses. Canadian Nurses Association; 2017. Accessed February 25, 2022. https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/code-of-ethics-2...
20. American Nurses Association. Code of Ethics. American Nurses Association; 2015. Accessed March 30, 2021. https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/c...
21. Romanello R, Chiarvesio M. Early internationalizing firms: 2004-2018. J Int Entrepreneurship. 2019;17(2):172–219. doi:10.1007/s10843-018-02418
22. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Med Res Methodol. 2008;8:1–10. doi:10.1186/1471-2288-8-45
23. Chinn PL, Falk-Rafael A. Embracing the focus of the discipline of nursing: critical caring pedagogy. J Nurs Scholarsh. 2018;50(6):687–694. doi:10.1111/jnu.12426
24. Gardenier D, Gibson-Young LM, Patrick R. Should nursing programs at schools that prohibit same-sex marriage be accredited? J Nurse Pract. 2019;15(4):272–273. doi:10.1016/j.nurpra.2019.01.003
25. Grace P. Enhancing nurse moral agency: the leadership promise of doctor of nursing practice preparation. Online J Issues Nurs. 2018;23(1):1–11. doi:10.3912/OJIN.Vol23No01Man04
26. McDermott-Levy R, Leffers J, Mayaka J. Ethical principles and guidelines of global health nursing practice. Nurs Outlook. 2018;66(5):473–481. doi:10.1016/j.outlook.2018.06.013
27. Valderama-Wallace C, Apesoa-Varano E. "Social justice is a dream": tensions and contradictions in nursing education. Public Health Nurs. 2019;36(5):735–743. doi:10.1111/phn.12630
28. Buck-McFadyen E, MacDonnell J. Contested practice: political activism in nursing and implications for nursing education. Int J Nurs Educ Scholarsh. 2017(1). doi:10.1515/ijnes-2016-0026
29. Zanchetta MS, Bailey A, Kolisnyk O, et al. Mentors' and mentees' intellectual-partnership through the lens of the transformative learning theory. Nurse Educ Pract. 2017;25:111–120. doi:10.1016/j.nepr.2017.05.009
30. Day L, Beard KV. Meaningful inclusion of diverse voices: the case for culturally responsive teaching in nursing education. J Prof Nurs. 2019;35(4):277–281. doi:10.1016/j.profnurs.2019.01.002
31. Zanchetta MS, Cognet M, Rahman R, et al. Blindness, deafness, silence and invisibility that shields racism in nursing education-practice in multicultural hubs of immigration. J Prof Nurs. 2020;37(2):467–476. doi:10.1016/j.profnurs.2020.06.012

32. Healey-Walsh J, Stuart-Shor E, Muchira J. Through the lens of postcolonial theory: establishing global north-south partnerships. Nurs Educ Perspect. 2019;40(5):270–277. doi:10.1097/01.NEP.0000000000000556
33. Amgott N. Critical literacy in #DigitalActivism: collaborative choice and action. Int J Inf Learn Technol. 2018;35(5):329–341. doi:10.1108/IJILT-05-2018-0060
34. Sumo JN, Staffileno BA, Warner K, et al. The development of an online diversity and inclusion community: promoting a culture of inclusion within a college of nursing. J Prof Nurs. 2021;37(1):18–23. doi:10.1016/j.profnurs.2020.10.002
35. Van Bewer V, Woodgate R, Martin D, et al. Exploring theatre of the oppressed and forum theatre as pedagogies in nursing education. Nurse Educ Today. 2021;103:104940. doi:10.1016/j.profnurs.2020.11.002
36. Verkuyl M, Lapum J, St-Amant O, et al. Engaging nursing students in the production of open educational resources. Nurse Educ Today. 2018;71:75. doi:10.1016/j.nedt.2018.09.012
37. Gazarian P, Cronin J, Jahng I, et al. Use of course-specific open educational resources in a graduate nursing course. J Nursing Educ. 2020;59(10):577–580.
38. Bova C, Perry D, Kane A, et al. Expanding horizons: Lonergan's philosophy as a guide to PhD program pedagogy. Nurs Outlook. 2018;66(1):77–83. doi:10.1016/j.outlook.2017.07.003
39. Woods-Giscombe C, Johnson Rowsey P, Kneipp S, et al. Student perspectives on recruiting underrepresented ethnic minority students to nursing: enhancing outreach, engaging family, and correcting misconceptions. J Prof Nurs. 2020;36(2):43–49. doi: 10.1016/j.profnurs.2019.08.006
40. LeBlanc R. Digital story telling in social justice nursing education. Public Health Nurs. 2017;34(4):395–400. doi:10.1111/phn.12337
41. Van Bewer V, Woodgate R, Martin D, et al. An indigenous and arts-influenced framework for anti-racist practice in nursing education. J Prof Nurs. 2021;37(1):65–72. doi:10.1016/j.profnurs.2020.11.002
42. Bates T. Teaching in a Digital Age. CC: Contact North/Contact Nord; 2016.
43. Levey J. Universal design for instruction in nursing education: an integrative review. Nurs Educ Perspect. 2018;39(3):156–161. doi:10.1097/01.NEP.0000000000000249
44. Bassendowski S. #Blimage. Can J Nurs Inform. 2019;14(1/2). Accessed September 26, 2020. https://cjni.net/journal/?p=5968
45. Starkey T. The critical factors that influence faculty attitudes and perceptions of teaching English as second language nursing students: a grounded theory research study. Nurse Educ Today. 2015;35(5):718–725. doi:10.1016/j.nedt.2015.01.017
46. Drevdahl D. Impersonating culture: the effects of using simulated experiences to teach cultural competence. J Prof Nurs. 2018;34(3):195–204. doi:10.1016/j.profnurs.2017.10.006
47. Darcy-Mahoney A, Carter B, Green K, et al. Looking backwards to move forward: using a social mission lens in nursing education. J Prof Nurs. 2020;36(5):412–416. doi:10.1016/j.profnurs.2020

48. Limoges J, Jagos K. The influences of nursing education on the socialization and professional working relationships of Canadian practical and degree nursing students: a critical analysis. Nurse Educ Today. 2015;35(10):1023–1027. doi:10.1016/j.nedt.2015.07.018

Appendix B: Phase 1 Codebook

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
1. Challenges Open Pedagogy	Actions, policies, and practices determined to present barriers to open pedagogy	Instructions: Code here if no appropriate subtheme; acts mostly as house shell for subcodes; code within subcode for demonstrating through value statements, actions, and outcomes.	
1.1 Time Requirements	Barriers placed on learning by time		Example: "Course work must be completed on a fixed schedule" (Post RN Website).
1.2 Limiting Acknowledgement of Prior Knowledge	Placing limits to getting credit for prior education, both formal and informal		Example: "NURS 4XX is not available for challenge" (NURS 4XX Syllabus).
1.3 GPA Requirements	Limiting access to education by GPA requirements		Example: "Program grade point average (GPA) of 3.0 required" (NURS 4XX Syllabus).
1.4 Limits to Material Access	Placing limits on access to educational materials		Example: "Online course materials cannot be accessed before your course contract start date" (NURS 4XX Syllabus).
2. Demonstrates Critical Characteristics	Valuing of teaching and learning that asks questions regarding who benefits and who is disadvantaged, while facilitating the removal of sociocultural barriers and facilitating the hearing of all voices	Instructions: Code here if no appropriate subtheme; acts mostly as house shell for subcodes; code within subcode for demonstrating through value statements, actions, and outcomes.	
2.1 Accessible and Flexible	Teaching and learning values practices and outcomes that discuss increasing accessibility and flexibility within education. Accessibility is characterized by increasing ease of ability to use, obtain, or participate in, education by removing barriers (Canada, 2022).		Example: "Open, Flexible, and Everywhere. Our families, our jobs, our communities: The most important things in our lives are changing. To prepare for change, to lead it, we are driven to be more open, more flexible, and more adaptable — no matter who we are, how old we are, or

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
	Flexibility is choice and freedom in learning, related to place, time, and type. Includes discussion of support services, intentional course and web design practices that increase flexibility; principles of choice in learning journeys; elements of barrier removal for learners; and identifying ways to expand access to more learners.		where we live" (Strategic Plan, 2018).
2.2 Accountability	Teaching and learning values, practices, and outcomes that identify accountability practices within education. Accountability is the values, practices, and outcomes that seek ethical, transparency, and responsiveness to stakeholders to build trust (Merriam-Webster, 2022). Includes aims and outcomes that demonstrate accountability.		Example: "30% of courses reviewed in 2018 (691, 633, 620, and one undergrad course). Masters in Nursing focus areas identified: Health Promotion; Leadership; Teaching; Health Research" (FHD Strategic Plan 2019–2022)
2.3 Advocacy	Teaching and learning values, practices, and outcomes that identify advocacy practices within education: "Advocacy involves engaging others, exercising your voice and mobilizing evidence to influence policy and practice. It means speaking out against inequity and inequality. It		Example: "AU Success: Indigenous knowledge, education, and oral traditions are supported, protected, and sustained" (FHD Strategic Plan 2019–2022).

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
	entails participating directly and indirectly in political processes and acknowledging the importance of evidence, power, and politics in advancing policy options" (Canadian Nurses Association, 2022, p. 1)		
2.4 Affordability	Teaching and learning values, practices, and outcomes that affordability practices within education. Affordability focuses on decreasing or managing costs to benefit students (i.e., making learning materials affordable). Affordability is not solely focused on students; it can also include cost reduction that benefits institutions and educators as well—as long as those benefits do not put costs back on the student.		Example: "Enhanced use of FHD and AU's resources; improved financial model" (FHD Strategic Plan 2019–2022).
2.5 Connecting with communities	Teaching and learning values, practices, and outcomes that identify moving beyond the person, who is attending the higher educational institution, to potentially impact communities. "Persons" includes a multitude of stakeholders, including learners, staff, researchers, and educators within the community in education. In this code we look at		Example 1: "Build partnerships with regulatory bodies and professional associations to ensure PD offerings are recognized for continuing education credit" (FHD Strategic Plan 2019–2022). Example 2: "Support participation in external professional and community service activities. Ensure faculty and staff have time to take part in appropriate

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
	reciprocity between education and research and the communities and values whereby education for individuals can potentially have positive effects on the communities they live in. Includes data demonstrating the aims and outcomes of interuniversity and external professional body connections, community acts of service, internships, and research in and with the communities involved.		activities" (FHD Strategic Plan 2019–2022).
2.6 Engage with open resources scholarship data	Teaching and learning values, practices and outcomes that identify OER acquisition, creation, and distribution as well as open spaces of knowledge, open data, and open scholarship.		Example: "Develop a scalable and sustainable model for open scholarship that optimizes social, economic, and environmental impact on communities developed in alignment with AU 's Strategic Research Plan (Scalable and Sustainable Model for Open Scholarship)" (Learning Framework, 2019).
2.7 Equitable Diverse Inclusion (EDI)	Teaching and learning values, practices and outcomes that identify EDI. "E" focuses on increasing access to opportunity for university members through recognition of, and addressing, systemic barriers while integrating evidence-informed strategies to mitigate		Example: "Shared Responsibility: Grounded in equity, we are committed to a cohesive community that shares the responsibility for the success of our university and all of our communities, recognizing that we are an active partner in a broader system." (Strategic Plan, 2018)

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
	barriers. “D” focuses on intentional recruitment and retention of people across backgrounds traditionally minoritized by systems of power. “I” focuses on intentionally bringing in people that have been left out through values and practices that remove barriers while creating safe and welcoming spaces.		
2.8 Reconciliation	Teaching and learning values, practices, and outcomes that identify reconciliation. Reconciliation (also known as conciliation) focuses on settler and Indigenous relations and processes that recognize past and ongoing harms from colonial practices in conjunction with forward movement to collaboratively establish healing, respectful and sustainable practices, and actions with and between settler and Indigenous peoples.		Example: “Indigenous curriculum content is consistent and appropriately threaded through all courses” (FHD Strategic Plan 2019–2022).
2.9 Redistribution of power in relationships	Teaching and learning values, practices, and outcomes that negotiate power in relationships between leadership, staff, faculty, students, and communities.		Example: “Shared Responsibility: Grounded in equity, we are committed to a cohesive community that shares the responsibility for the success of our university and all of our communities, recognizing that we are an active partner

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
			in a broader system" (Strategy Plan 2018).
2.10 Open principles that are reinforced by institutional frameworks and polices	Values, practices, and outcomes that describe open principles within institutional processes, frameworks, and policies.		Example "Design for Learning (UDL) principles, that will align with industry technical accessibility standards, to ensure that this accessibility is built into all curricula from the outset" (Learning Framework, 2019).
2.11 Person or student-centred practices	Teaching and learning values, practices, and outcomes that identify person- or student-centred educational practices. Thinking "person first" in interactions and "actions second," putting the student at the centre of the learning activity, and not focusing first on the activity itself.		Example: "Our Vision at AU provides a world-leading digital learning experience that enables learners to chart their own learning journeys to achieve their personal goals and to thrive in a rapidly changing world" (Learning Framework, 2019).
3. Demonstrates the Scholarship of Teaching and Learning (SoTL)	Teaching and learning values, practices, and outcomes that identify the SoTL. The SoTL focuses on practices, research, and strategies that honour the value of, deepen understanding, produce evidence, and refine practices associated with effective and meaningful teaching and learning.	Instructions: Code here if no appropriate subtheme; acts mostly as house shell for subcodes; code within subcode for demonstrating through value statements, actions, and outcomes.	
3.1 Adult learning principles	Teaching and learning values, practices, and outcomes that demonstrate working with adult learners and associated adult learning principles: (a) the need to		Example 1: "Learning to be, and to become supporting of, our learners so they can achieve their goals, adapt, and thrive in a changing world, and develop to their fullest

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
	know, (b) the learner's self-concept, (c) the role of the learners' experiences, (d) readiness to learn, (e) orientation to learning (Knowles et al., 2005). Includes data that demonstrates empowerment, self-efficacy, transformative learning, lifelong learning, relevance through career advancement, building leaders, scaffolding from what is known, multiple means of teaching and learning.		potential" (Learning Framework, 2019). Example 2: "Advance your career with our innovative and practical online programs and courses. Join learners from across the country from diverse health sectors and care settings (FHD, Welcome Webpage).
3.2 Goal of high quality innovative adaptive, relevant, and meaningful education	Teaching and learning values, practices, and outcomes that demonstrate the goal of excellent and high-quality education. Data includes development of educators and administrators.		Example 1: "That process resulted in Imagine: Transforming Lives, Transforming Communities. Imagine articulates a bold vision that aims to inspire, build, and support a culture of innovation, and to reimagine the learning experience at (AU)" (Learning Framework 2019). Example 2: "increase professional development and cross-training opportunities for the administrative team • reorganized admin. team • cross-training re: above processes in anticipation of SRM

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
			• customer service training for all admin. team staff" FHD Strategic Plan 2019–2022
3.3 Relational	Teaching and learning values, practices, and outcomes of teaching and learning that identify relational practices. Relational practices prioritize relationships as important across the institution. Relationships are integral to the learning process and are identified amongst many parties, including between students, educators with students, between educators across the institution, and between institutional members, such as students, faculty, staff, and researchers with their respective communities.		Example 1: "Rooted in a culture of collegiality" and "Improve and enhance relationships with students" (FHD Strategic Plan 2019–2020.)
4. Demonstrates use of digital education	Teaching and learning values, practices, and outcomes of teaching and learning that connect to the digital space and digital education.	Instructions: Code here if no appropriate subtheme; acts mostly as house shell for subcodes; code within subcode for demonstrating through value statements,	Example: "Our vision at AU provides a world-leading digital learning experience that enables learners to chart their own learning journeys to achieve their personal goals and to thrive in a rapidly changing world" (Learning Framework 2019).

Theme, Subthemes, and Applicable Codes	Definition	Instructions	Example
		actions, and outcomes.	

References for Codebook

Canadian Nurses Association. (2022). Advocacy Priorities. https://www.cna-aiic.ca/en/policy-advocacy/advocacy-priorities

Employment and Social Development Canada. (2022). Towards an Accessible Canada. Government of Canada. Retrieved from https://www.canada.ca/en/employment-social-development/programs/accessible-canada.html

Knowles, M. S., Holton, E. F. III, & Swanson, R. A. (2005). The Adult Learner (6th ed.). Routledge. http://0-search.ebscohost.com. [name of OCDDU redacted for privacy] pac.lib. u.ca/login.aspx?direct=true&db=nlebk&AN=130099&site=eds-live

Merriam-Webster. (2022). Accountability. In *Merriam-Webster.com dictionary*. https://www.merriam-webster.com/dictionary/accountability

Universities Canada. (2017, October 26). Universities Canada principles on equity, diversity, and inclusion. https://www.univcan.ca/media-room/media-releases/universities-canada-principles-equity-diversity-inclusion/

Appendix C: Phase 2 Interview and Terminology Guide

1. Over the last three years, what has been your role at the university?

Prompts

   a. What courses do you teach?
   b. Do you carry on any other roles within the university? If so, what are they (e.g., program leadership, committee work, administrative work)?

2. Specific to your role as an educator within the undergraduate program, how would you describe the major responsibilities of your everyday work?

Prompts

   a. Are you engaged in course assignment marking, teaching in clinical online or in-person or blended delivery courses, course content revision, email communication?

3. How does being in a primarily digital-distance context compare to teaching and learning practices in traditional face-to-face programs?

Prompts

   a. How are digital and face-to-face course design practices different? How are they the same?
   b. How are digital and face-to-face teaching practices different? How are they the same?

4. Does being in an open university influence teaching and learning practices?

Prompts

   a. Why or why not?
   b. How does being an open institution look different from being in nonopen institutions?

5. This question discusses relational teaching and learning practices, which are defined as being (here I share the definition as per the terminology guide). How do you see relational teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

   a. How would you compare your relational educator practices to BN program practices and expectations?

   b. What do you think are barriers to relational teaching and learning practices at the following levels?
      i. classroom
      ii. program
      iii. institutional
   c. What do you think is done, or could be done, to increase the use of relational teaching and learning practices at the following levels?
      i. classroom
      ii. program
      iii. institutional

6. This question discusses student or person-centred teaching and learning practices, which are (here I share the definition as per the terminology guide). How do you see student- or person-centred teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

   a. How would you compare your student or person-centred educator practices to BN program practices and expectations?
   b. What do you think are barriers to student- or person-centred teaching and learning practices at the following levels?
      i. classroom
      ii. program
      iii. institutional
   c. What do you think is done, or could be done, to increase the use of student- or person-centred teaching and learning practices at the following levels?
      i. classroom
      ii. program
      iii. institutional

7. This question discusses critically framed teaching and learning practices that are (here I share the definition as per the terminology guide). How do you see critically framed teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

   a. How would you compare your critically framed educator practices to BN program practices and expectations?
   b. What do you think are barriers to critical teaching and learning practices at the following levels?

        i. classroom
        ii. program
        iii. institutional
    c. What do you think is done or could be done to increase the use of critical teaching and learning practices at the following levels?
        i. classroom
        ii. program
        iii. institutional

8. This question discusses open-knowledge teaching and learning practices which are (here I share the definition as per the terminology guide). How do you see open knowledge teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

    a. How would you compare your open-knowledge educator practices to BN program practices and expectations?
    b. What do you think are barriers to open-knowledge teaching and learning practices at the following levels?
        i. classroom
        ii. program
        iii. institutional
    c. What do you think is done, or could be done, to increase the use of open-knowledge teaching and learning practices at the following levels?
        i. classroom
        ii. program
        iii. institutional

9. This question discusses the SoTL in teaching and learning which is (here I share the definition as per the terminology guide). How do you see the SoTL incorporated in the classroom at both the BN program level and the institutional level?

Prompts

    a. How would you compare your SoTL educator practices to BN program practices and expectations?
    b. What do you think are barriers to incorporating the SoTL into teaching and learning practices at the following levels?
        i. classroom
        ii. program
        iii. institutional
    c. What do you think is done, or could be done, to increase the incorporation of the SoTL into teaching and learning practices at the following levels?
        i. classroom

ii. program
iii. institutional

10. This question discusses meaningful and relevant teaching and learning practices which are (here I share the definition as per the terminology guide). How do you see meaningful and relevant teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

a. How would you compare your educator practices to BN program practices and expectations regarding meaningful and relevant teaching and learning practices?
b. What do you think are barriers to meaningful and relevant teaching and learning practices at the following levels?
    i. classroom
    ii. program
    iii. institutional
c. What do you think is done, or could be done, to increase the use of meaningful and relevant teaching and learning practices at the following levels?
    i. classroom
    ii. program
    iii. institutional

11. This question discusses innovative teaching and learning practices which are (here I share the definition as per the terminology guide). How do you see innovative teaching and learning practices incorporated in the classroom at both the BN program level and the institutional level?

Prompts

a. How would you compare your innovative educator practices to BN program practices and expectations?
b. What do you think are barriers to innovative teaching and learning practices at the following levels?
    i. classroom
    ii. program
    iii. institutional
c. What do you think is done, or could be done, to increase the use of innovative teaching and learning practices at the following levels?
    i. classroom
    ii. program
    iii. institutional

12. When you think about outcomes for BN students upon graduation what do you think are the most crucial outcomes?

Prompts

a. What outcomes do you think the BN program facilitates in the short term?
b. What outcomes do you think the BN program facilitates in the long term?

Terminology Guide for Terms Discussed in the Interview

- **Open University**: Refers to higher educational institutions (e.g., AU) that promote policies and practices of openness through admission processes that do not limit seats or that have competitive practices to limit who accesses a seat; and that offer teaching and learning practices, usually by digital-distance ,so as to promote flexibility and accessibility by removing geographical barriers and allowing students to schedule their educational journeys around personal and professional commitments. Open practices also include pursuing course loads that meet student convenience (full or part-time).
- **Relational Practice:** Refers to teaching and learning values, practices, and outcomes that prioritize relationships. Relationships can occur between many parties: students; educators and students; educators across the institution; and institutional members (i.e., students, faculty, staff, and researchers, including their relationships with their communities.
- **Student- or Person- Centred**: Teaching and learning values, practices, and outcomes that identify person-centred educational practices. Thinking "person first" in interactions and "actions second," putting the student at the centre of the learning activity, rather than focusing first on the activity itself.
- **Critically Framed Teaching and Learning:** Refers to teaching and learning values, practices, and outcomes that ask questions, such as who benefits and who is disadvantaged, and that facilitate the removal of barriers to teaching, learning, and research while also facilitating equity, diversity, and inclusion practices to increase accessibility and flexibility within education.
- **Open-Knowledge:** Refers to teaching and learning values, practices, and outcomes that identify open education resources (OER) acquisition, creation, and distribution as well as the use of and creation of open data, and practice of open scholarship.
- **SoTL**: Refers to teaching and learning values, practices, and outcomes that identify the scholarship of teaching and learning (SoTL). The SoTL focuses on practices, research, and strategies that honour the value of, deepen understanding, produce evidence, and refine practices associated with effective and meaningful teaching and learning.
- **Meaningful and relevant**: Refers to teaching and learning values, practices, and outcomes that identify meaningful and relevant teaching, learning, and research. Experiences that honour a person's need to know, their intrinsic motivation, and experiences that are applicable to where they are as professionals and participants in the experience.
- **Innovative**: Refers to teaching and learning values, practices, and outcomes that identify new and creative teaching, learning, and research.

Appendix D: Recruitment Advertisement for Participants

Open Pedagogy in Digital-Distance Bachelor of Nursing Education (Dissertation Research Study)

I am a doctoral student at Athabasca University exploring open pedagogy in online learning environments. I am reaching out to you as a nurse educator in the Bachelor of Nursing degree with AU. As an experienced digital-distance undergraduate nurse educator, I am requesting your participation in my project. Participation will be through individual video conference interviews.

Specific to open pedagogy, I want to ask you about how teaching and learning practices are relational? How you see critically framed practices in teaching and learning? How you see student-centred practices? How you see evidence-informed and quality teaching and learning practices used? Finally, how you see the practice of open knowledge development and distribution such as with open educational resources (OER)?

To thank you for your time, I will be providing a 50$ Starbucks or Chapters Indigo gift card. If you would be interested in participating or for more information, please email Kristin Petrovic at kpetrovic@athabascau.ca or call XXX-XXX-XXXX.

Appendix E: Phase 2 Codebook

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
Nurture Development	**Nurturing Educator Development**	Data that discusses supporting and facilitating the development of the educator in digital-distance nurse education (DDNE). This would include data related to on-boarding, on-going educator development, and program resources related to educator development. Nurturing educator development in DDNE focuses on the connection of educators to current nursing practice or DDNE pedagogy through self-led strategies, professional development (PD), resources, expertise, mentoring, and support.	When I was first hired, I felt like I had really strong mentorship around this; so. Senior professor and senior professor and former leadership of program. There was such institutional strength in this area within our BN program. And that I was given resources to use before I even entered the classroom. So that's the sort of first start was I was provided with.	Code here.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
Nurture Institutional	**Nurturing Through Institutional and Program Structure Policy and Practice**	Data that discusses supporting and facilitating open pedagogy in DDNE, related to internal institution and program structure policy and practice that has evidence of open pedagogical principles. Further subheading exists specific to (a) course and resource design and development, and (b) Institutional level aims and polices.	So. So I think we're pretty good from the from use point of view, and I think the university is well positioned to, you know, they're pretty much on board with that from what I gather, like with OER.	Code here if no appropriate subcode.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
(A) Nurture Course	***(A)Nurturing Specific to Course and Resource Design and Development***	Data that discusses supporting and facilitating open pedagogy in DDNE, related to course and resource design and development. This includes data around course writing, development, and practices specific to course revision processes, development, and design of assessments, learning activities, OER and other resources, and general course design that evidence open pedagogical principles and practices.	You know courses, I think I see the scholarship of teaching and learning most often in the revision of courses, more so than the day-to-day teaching, I think. There's the applied practice of this, but when I think of the research and strategies; that sort of understanding. What we're doing a lot of, because for some of the theory courses it's so much about marking, and then supporting students as they work through the content, you end up front loading these strategies. And umm, I think I see that in making sure that the course is well-scaffolded; that there's really clear outcomes that you're not	Code to this subcode; do not double code to parent code of institutional as well.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
			providing an assignment that doesn't match what the student is/should be learning. Umm, and that there's things like a rubric that would actually align with what the assignment is asking for. They've been— nothing is worse than being a student that feels like they just do assignments for assignment's sake, and they don't. Makes sense. So I think it's really making sure that we're trying to be meaningful in what we're doing. I'm seeing that more and more. I think the development of our curriculum committee, and having sort of a focus team of people helping guide that work, has been a really wonderful shift	

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
			as a faculty in general.	
(B) Nurture Policy	***(B) Nurturing Specific to Institutional and Program Level Aims and Policies***	Data that discusses supporting and facilitating open pedagogy in DDNE, related to internal institution and program aims and policies that demonstrate open pedagogical principles. This includes data specific to open admission practices and other policies	And also thinking in the terms of social, social justice, and everything: that means so much institutionally. Again, it's about being open access. Everybody like, no matter who you are, you can come into our program, I think.	Code to this subcode; do not double code to parent code of institutional as well.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
		that evidence open pedagogy.		
Nurture Agency	**Nurturing Related to Educator Teaching and Learning Values and Practices**	Data that discusses supporting and facilitating open pedagogy in DDNE, relative to the agency of the educator through teaching and learning values and practices. Data includes alignment, connection, and demonstration of values and practices in DDNE that is characterized by open pedagogy. Further subheadings exist specific to (a) student centred or relational and (b) SoTL,	Innovation isn't necessarily about a new technology, but it's about how do we bring shift to practice. And in our theory, courses were noticing that students are lacking that relational space. So how do we innovate and shift our current structure to make that more positive? Umm, rather than adding a SIM, it's adding a face to FaceTime with a tutor, and maybe a discussion with peers.	Code here if no appropriate subcode.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
(A)Nurture Student and Relational	***(A) Nurturing Specific to Open Pedagogy, Heavily Demonstrating Student-Centred Or Relational***	Data that discusses supporting and facilitating open pedagogy in DDNE, relative to the agency of the educator that is characterized by student-centred or relational teaching and learning values and practices.	What I try to do is have real openness. I try to give very, like, a lot of notes and papers for people in terms of what they're doing wrong, what they could do differently, and then a real openness to say, "That's a great point. I've never thought of that before," or comments like: "You are really insightful." Umm, you need to think of a graduate program down the road. But when a student is struggling, I'll say: "I really want you to do well, you know. Can we talk on the phone, or you know, or would you consider the writing centre," this kind of thing? So I don't; I think it's a practice of many in our	Code to this subcode; do not double code to parent code of agency as well.

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
			undergraduate program. So I'm not outstanding. I'm not saying that this is unique to me.	
(B)Nurture SoTL	***(B) Nurturing Specific to Open Pedagogy, Heavily Demonstrating SoTL***	Data that discusses placing high value, supporting, and facilitating open pedagogy in DDNE, relative to the agency of the educator that is characterized by effective, meaningful, and principled teaching and learning values and practices.	In a way I as professor, have to commit to that teaching and student experience. So I do think that there's a difference between your theory and our clinical courses, and how we are able to be person-centred. But when it comes to things like, in theory, finding opportunities to connect with that student being kind, because it's really more about finding those opportunities to learn rather than . . . I don't care if they get a perfect	Code to this subcode do not double code to parent code of agency as well

Nurturing Open Pedagogy				
Shortened Theme	**Theme & Subtheme Codes**	**Definition**	**Text Example**	**Coding Instruction**
			score, but if they are feeling like their writing is growing, that's for me. I've really big thing, or I don't mind rereading another paper, as long as I haven't marked that past one. And I think that again puts students first.	

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
Challenge Development	**Challenges Related to Development of Educators**	Data that discusses barriers, stressors, or areas of deficit related to the development of the educator in DDNE. This includes data related to on-boarding, on-going educator development and program resources related to educator development. Challenges to educator development in	There, you know, like just as far as thinking goes, and I, and I wish so much that we had the chance to talk more because I learned from mentors like, I don't know anything about teaching. I mean, I happened to naturally be a good teacher, like, you know, I got lucky. I pulled the nice straw for my career. But. But the big picture stuff and	Code here.

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
		DDNE focus on the lack of connection of educators to current nursing practice, DDNE pedagogy, lack of PD, lack of resources, expertise, mentoring, or support.	the things that I need to think about adult education and about open education, and you know, as we transitioned into, you know, from getting stuff in the mail to putting on the computer, I learned it from my colleagues like, and I learned about it, because we talked about it.	
Challenge External	**Challenges Related to External Professional and Educational Structure Policies and Practices**	Data that discusses DDNE barriers, stressors, or areas of deficit related to external bodies of nursing, nursing education, and higher education. This includes data related to a mismatch, disconnection, or tension between nursing practice regulators, nursing education approval boards,	It's interesting, like on the institutional level, I don't feel as connected to a your institutional practices, because I think our BN program takes so much of our learning outcomes from competency-based requirements from CRNA.	Code here.

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
		and higher education approval boards, and the institution or program expectations, mission, vision, and values.		
Challenge Institutional	**Challenges Related to Institutional and Program Structure Policies and Practices**	Data that discusses internal institution and program barriers, stressors, or areas of deficit related to open pedagogy in DDNE. This includes data around structure policy and practice that demonstrates barriers, mismatch, disconnection, or tension with open pedagogical principles. Further subheadings exists specific to (a) cost, (b) course and resource design and development, and (c) educator	I think there's sometimes attempts for it, so I think you're talking about at the: Are you talking about president and this sort of thing? Yeah. I think there's attempt to. But I think it's almost impossible to facilitate. Because it's like herding a litter of cats. How do you do that? They're all running, you know, in opposite directions. I think it's very hard for people at top levels, even at face-to-face universities, to facilitate relationships. So I think at that higher level. It's always difficult and I think that's why.	Code here if no appropriate subcode.

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
		workload role and time.		
(A)Challenge Cost	***(A) Challenges Specific to Cost***	Data that discusses internal institution and program barriers, stressors, or areas of deficit related to the cost of open pedagogical practices in DDNE. This would include data around structure policy and practice that has evidence of barriers, mismatch, disconnection or tension compared to open pedagogical principles and practices relative to cost.	See I and I think this is the challenge of. What is cost effective and what is not? Or academic coordinator. So specially when you have a clinical course. Plus you've got theory and stuff like this while the clinical is gonna take so much more. So then the theoretical we've got a squeeze out a little extra time where we can and so then it can be we squeeze out of the theoretical we do the basic minimum so that we can do appropriate justice to the clinical because the students needed in clinical.	Code to this subcode do not double code to parent code of institutional as well

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
(B) Challenge Course	***(B) Challenges Specific to Course and Resource Design and Development***	Data that discusses internal institution and program barriers, stressors, or areas of deficit related to course and resource design and development characterized by open pedagogy in DDNE. This would include data around course writing, development and practices that have evidence of barriers, mismatch, disconnection or tension compared to open pedagogical principles and practices.	So I just I found it difficult. It's definitely not my favorite. You know, I don't make a difference marking and health studies teaching and learning paper. Yeah. So I don't think that that relational practice is really challenging. I think that it's something that we try to do, you know, with like monthly check-ins and welcome letters and things like that, but That in itself sort of opens the door, but it doesn't create relational practice right? It kind of tries to open that door, but it is a bit more challenging, especially when there's no face to face or phone calls, things like that.	Code to this subcode do not double code to parent code of institutional as well

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
(C) Challenge Role	***(C) Challenges Specific to Educator Workload Role and Time***	Data that discusses barriers, stressors, or areas of deficit to open pedagogy in DDNE related to the structure of the educator role, as evidenced through their workload and how they perceive use of time within their educator role.	Yeah, it's a hard one for me and no one should not be a hard no. It should be a soft no in that we try to. Uh, we try to facilitate students with their learning. If they do not have the background support for it, like they didn't do this in their previous degree, say in a in a country from another, you know, a different country. But on the other hand, not to the point where it breaks our backs, where we're having to mark a paper three times over so that they can get. Ohh an "A" see on it and but then when we have four or five papers to mark then we're doing when we're doing triple the work then it becomes untenable for the profs.	Code to this subcode do not double code to parent code of institutional as well

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
Challenge Agency	**Challenges Related to Educator Teaching and Learning Values and Practices**	Data that discusses barriers, stressors, or areas of deficit in open pedagogy in DDNE relative to the agency of the educator through teaching and learning values and practices. Data would include misalignment of values and practice, a disconnect between values and practices, noted stigmas and myths around DDNE and open pedagogy. One further subheading specific to (A) Critical.	I don't have. It's not so negative about theory based courses, but I feel like I feel like we don't really have that too much in theory. I would say because we have the set assignments and there's not, we don't provide opportunity to redo them. So if we wanted to tailor to a student experience or tailor it to a student's needs, I don't think we're there yet. I think it would be nice too.	Code here if no appropriate subcode
(A) Challenge Critical	***(A) Challenges Specific to Critical***	Data that discusses barriers, stressors, or areas of deficit in open pedagogy in DDNE relative to the agency of the educator through critical teaching and	Umm and making open resources and then sharing them on the big in the big old world there and to me the first thing that has to happen, which we don't have and further to my other point about not having	Code to this subcode do not double code to parent code of agency as well

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
		learning values and practices.	bigger conversations about bigger things is how do we feel about that?	
Challenge Tech	**Challenges Related to Technology**	Data that discusses barriers, stressors, or areas of deficit related to the use of technology in practicing open pedagogy in DDNE.	I also think sometimes we love the idea of innovation, but doesn't necessarily work super well. So things like the V-SIM is a resource that was brought in, but I find it really flat because I think. Educational resources tend to be a little bit behind the innovative like things like video games or simulation. They can, they're just the money isn't there? And so you're getting such high quality work in a consumer field and then if you just notice when issues arise or a game is lagging or things like that,	Code here

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
			just feel slow way more than you would elsewhere.	
Challenge COVID		Data that discusses barriers relative COVID-19 Disruptions	It was pre COVID so we had research meetings. There were more then. I remember going to a faculty research symposium. They had some speakers and it was a chance to mingle, and there was different faculties and they were sharing. There was even a table set up that had books and resources that were from the AU press that people could share or have for free. And it was a much more collegial and open sort of conversation space. I think those spaces have decreased as	Code here

Challenging Open Pedagogy				
Shortened Theme	**Theme & Subtheme Code**	**Definition**	**Text Example**	**Coding Instruction**
			COVID has happened	
Challenge Western Values		Data that discusses barriers relative to westernized values and practices, colonial structures and the impact that they have on the greater practices of education	I had this great idea and it's mine and I get to put my name first in the line, you know, like it doesn't, it, doesn't it? It. So there's a lot and that's that whole that whole conflict. That same with the colonials. Of that, as long as we just recognize it.	Code here

Appendix F: Social Complexity Theory Validity Check Questions

*The following questions are directly quoted from the authors as stated below

- Have I forced my topic to fit the framework and procedures of Social Complexity Theory or does the model of my topic naturally emerge?
- Do the Identified attracting clusters that I identified actually interact with one another to form a social system, or are they disparate areas of inquiry I am forcing into a network of my own making?
- Or does the web of social practices I have created make sense?
- Does the model "hold together" relatively well or does it keep falling apart?
- Can I really use the terms of social complex theory to describe my topic or am I forcing these terms on my data?
- Am I just saying the same thing about my topic as everyone else, albeit with the fancy tools of complexity science?

(Castellani & Hafferty, 2009, p.183)

Appendix G: WNRCASN Grant Letter

Kristin Petrovic
Athabasca University
1 University Drive
Athabasca, AB

January 2, 2022

Co-Supervisor Beth Perry PhD

RE: WNRCASN 2021 Graduate Student Research Grant

Dear Kristin,

Congratulations! Your proposal, "*Digital Distance Nurse Educator Practice with Open Pedagogy: A Complex Systems Exploration*," has been selected by the Review Committee as the recipient of the 2022 WNRCASN Graduate Research Grant of $2500.

In addition to the grant requirements stated on the WNRCASN website, please be advised of the following WNRCASN grant policies pertaining to this disbursement:

- Grant award term is one calendar year from the time the grant has been disbursed. An extension may be requested by emailing: President@WNRCASN.ca
- Research funds must be deposited into a research account with the successful candidate's educational institution, usually under the supervisor's name. If the study cannot be completed as intended, all grant monies must be returned to WNRCASN. At the completion of the grant term, all remaining monies must be returned to WNRCASN.
- Budget allocation of funds may be used for personnel and materials expenses only, conference expenses will not be covered. Overhead and operating costs are not permitted expenses for this grant. Approximately 10% of the budget allowance may be moved from one line item to another, as long as an explanation is provided.
- Funds will be sent to the successful candidate once the ethics approval certificate has been submitted to your research office and WNRCASN Secretary.
- *Please provide instructions from the research office at your university for sending the grant monies to you.

Best wishes for your research.

Warm Regards,
Sherri Melrose PhD, WNRCASN President
Dawn Mercer-Riselli MN, WNRCASN Secretary/Treasurer

Appendix H: Study Budget

Budget Item	**Description**	**Budget Cost**	**Funding Received**
Materials	Transcription Software (Otter AI-Business) (155.88 USD @ 1.27 exchange rate) *no longer required due to TEAMS having transcription capabilities	197.96	
Honorariums	Participation Incentive (50X3)	150	
Dissemination Costs	Open Access Publication fee	2,000	
	Total Requested	2,347.96	
	WNRCASN Grant Received		**2, 500**
Remaining Study Costs			
Dissemination Costs	Open Access Publication Fee remaining	1, 000	
Honorarium	Participation Incentive (50X1)-additional participant added	50	
	Total Remaining	1, 050	

Appendix I: Research Study Timeline

Date	**Key Activities**
January 2022	Notification of WNRCASN grant received
August 2022	Ethics application to Athabasca University; ethics approval received
September 2022	Proposal defense
Phase 1 Initial Model Build	
October-November 2022	Historical and current document analysis
December 2022	Phase 1 validity check
January -February 2023	Phase One Write Up
Phase 2 Working Model Build	
February- March 2023	Develop interview tool
March 2023	Pilot Interview
April 2023	Participant recruitment invitation advertisement
April 2023	Screen and select case study participants (first come first serve)
April 2023	Interview 3 additional nurse educators
May-June 2023	Phase two analysis
June 2023	Write up phase two analysis
June-September 2023	Finalize dissertation chapters
September 2023	Oral defense
October-December 2023	Publish results manuscripts

November 2023	Complete final budget report for WNRCASN grant *

Appendix J: Research Ethics Board Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: **25058**

Principal Investigator:
Mrs. Kristin Petrovic, Academic Coordinator
Faculty of Health Disciplines\Centre for Nursing & Health Studies

Supervisor/Project Team:
Dr. Pamela Walsh (Supervisor)

Project Title:
Exploring the Complex Social System of Open Pedagogy in Digital Distance Undergraduate Nursing Education

Effective Date: December 02, 2022 **Expiry Date**: December 01, 2023

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: December 02, 2022**

Katie MacDonald, Chair
Faculty of Humanities & Social Sciences, Departmental Ethics Review Committee

---

Athabasca University Research Ethics Board
University Research Services Office
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca Telephone:
780.213.2033